

STANDARD DETAILS



CITY OF SANTA CLARA 2007

**PREPARED BY
DEPARTMENT OF PUBLIC WORKS**

**STEVE YOSHINO
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**RAJEEV BATRA
CITY ENGINEER**

Santa Clara



2001

STANDARD DETAILS

Department of Public Works
City of Santa Clara, CA

APPROVED BY:

Rajeev Batra

RAJEEV BATRA
CITY ENGINEER

DATE: *Feb. 1, 2007*

Acknowledgement of contributions

Our sincere thanks to the staffs of the
Engineering Department,
Water & Sewer Department,
and Street Department
for their contributions.

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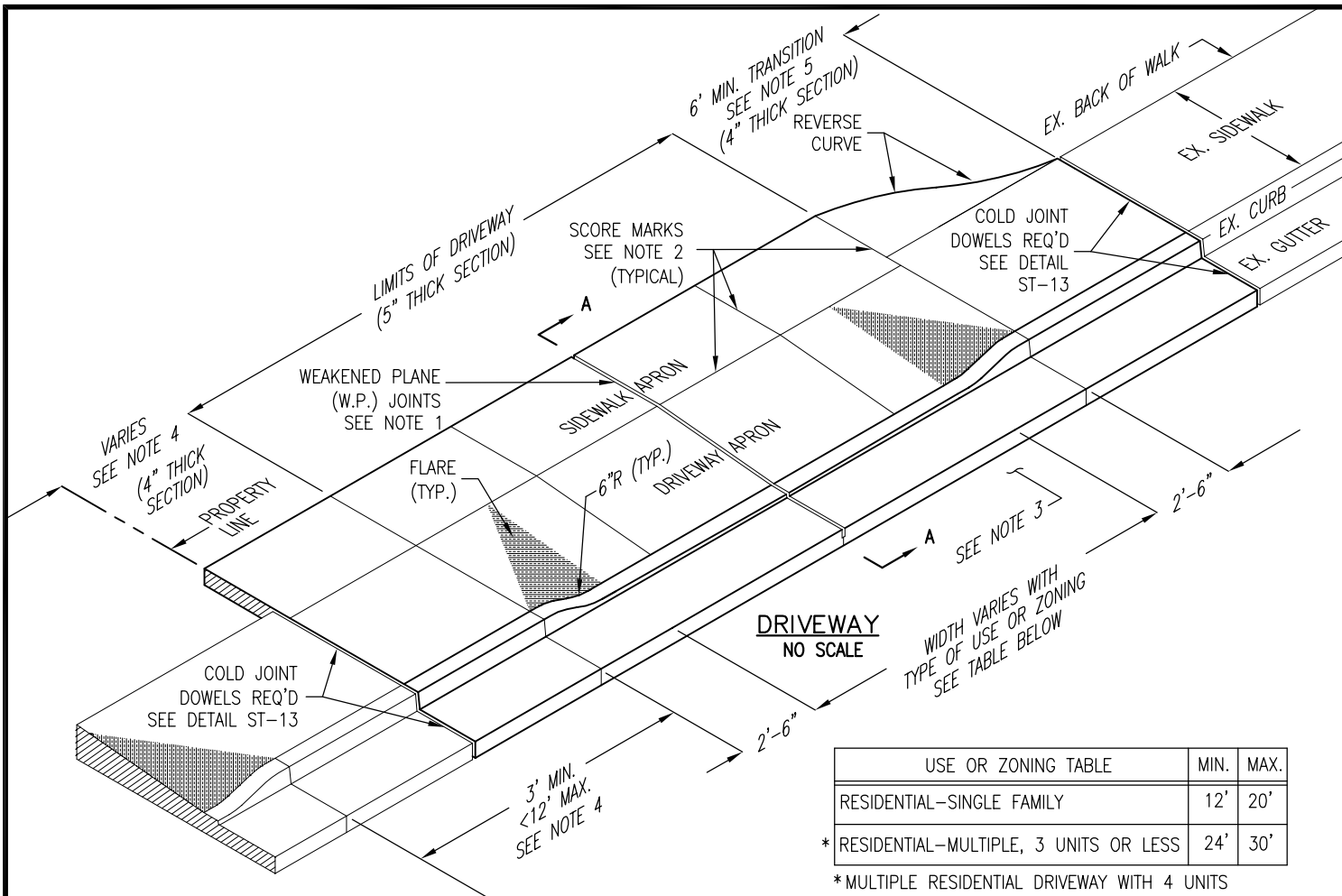
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STANDARD DETAILS

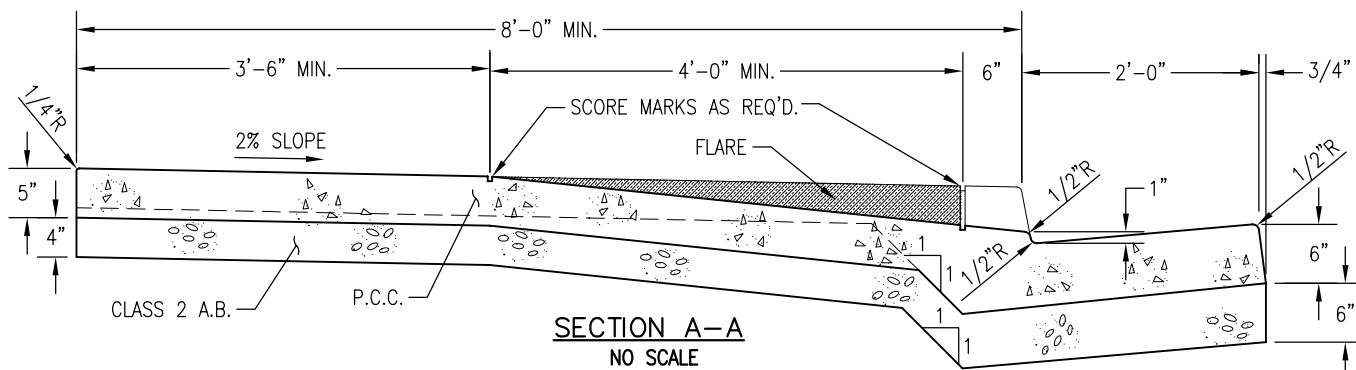
Department of Public Works
City of Santa Clara, CA

STREET SECTION DETAILS ST-1 TO ST-20



NOTES:

1. W.P. JOINTS REQUIRED ON CENTERLINE FOR DRIVEWAYS 12' TO 20' WIDE. DRIVEWAYS 24' TO 30' WIDE SHALL HAVE 2 W.P. JOINTS EVENLY SPACED (AT 1/3 AND 2/3 POINTS).
2. PLACE SCORE MARKS AT 1/4 POINTS ON DRIVEWAYS 12' TO 20' WIDE AND AT 1/6 POINTS ON DRIVEWAYS 24' TO 30' WIDE. SCORE MARK REQUIRED AT DRIVEWAY SLOPE BREAK PARALLEL TO EXISTING FACE OF CURB.
3. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.
4. WHERE THE DISTANCE BETWEEN NEW DRIVEWAY LIMIT AND PROPERTY LINE IS LESS THAN 6 FEET AT THE BACK OF DRIVEWAY AND THERE IS AN ADJACENT DRIVEWAY LESS THAN 12 FEET DISTANCE AWAY, THE SIDEWALK SHALL NOT TRANSITION. NEW SIDEWALK SHALL TERMINATE AT PROPERTY LINE.
5. WHERE THE DISTANCE BETWEEN NEW DRIVEWAY AND PROPERTY LINE IS EQUAL TO OR GREATER THAN 6 FEET AT THE BACK OF DRIVEWAY AND THERE IS NO ADJACENT DRIVEWAY WITHIN 12 FEET DISTANCE OF NEW DRIVEWAY, THE SIDEWALK SHALL TRANSITION FROM BACK OF DRIVEWAY TO EXISTING SIDEWALK.



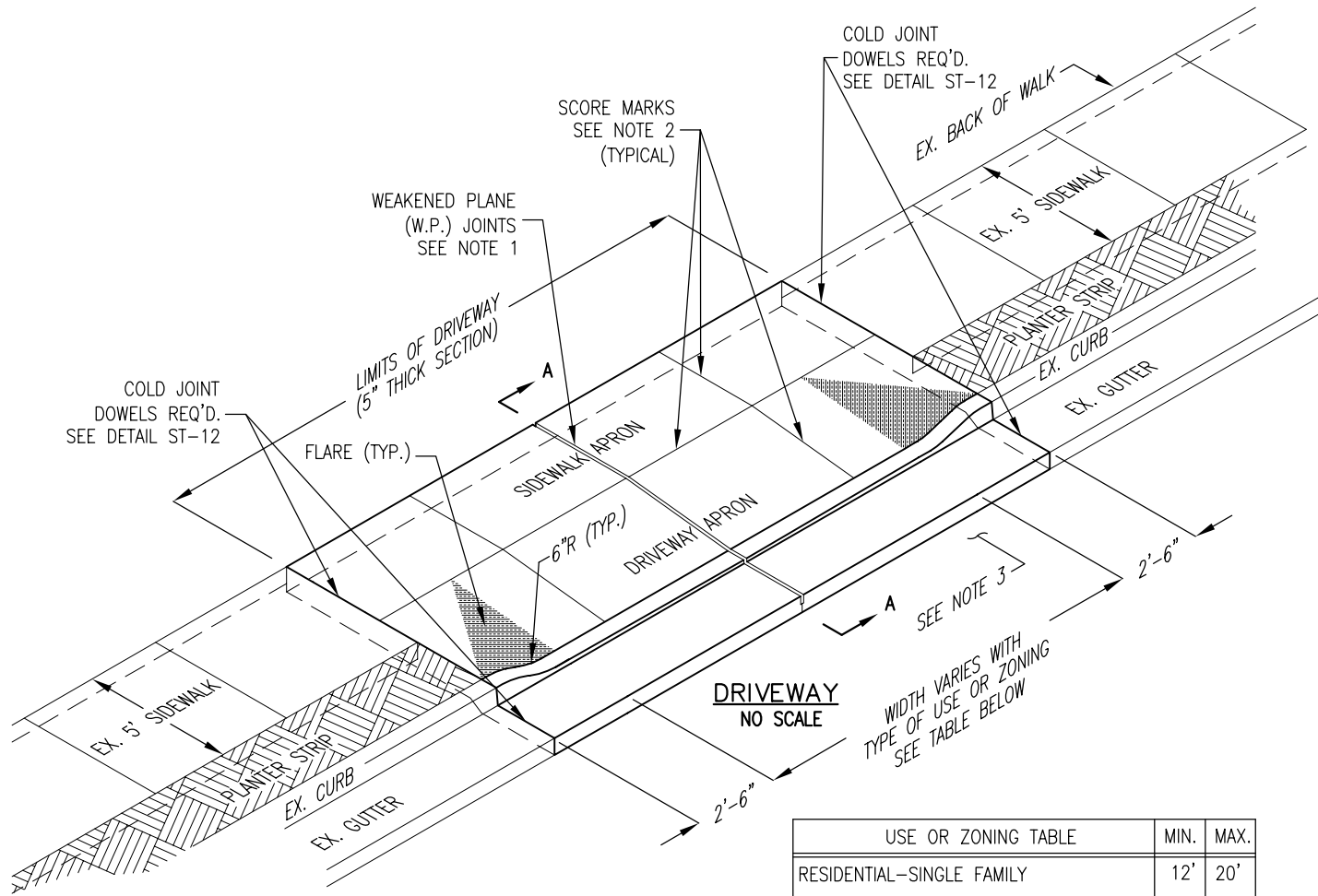
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**RESIDENTIAL DRIVEWAY
WITH ATTACHED SIDEWALK**

CITY OF SANTA CLARA

ST-1

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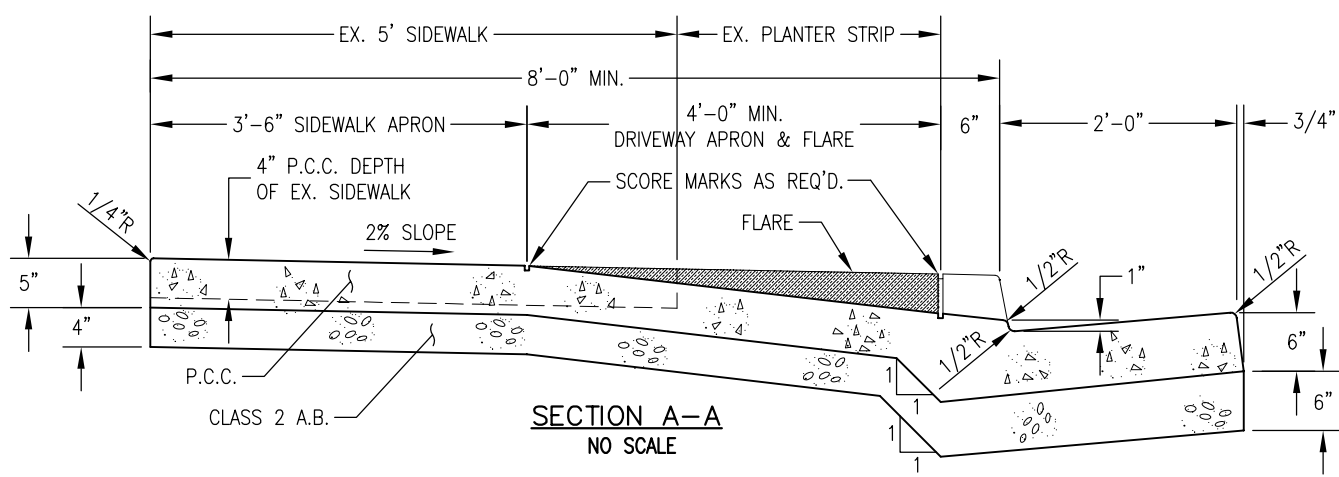


USE OR ZONING TABLE	MIN.	MAX.
RESIDENTIAL-SINGLE FAMILY	12'	20'
* RESIDENTIAL-MULTIPLE, 3 UNITS OR LESS	24'	30'

* MULTIPLE RESIDENTIAL DRIVEWAY WITH 4 UNITS OR MORE SHALL USE COMMERCIAL DRIVEWAY.

NOTES:

1. W.P. JOINTS REQUIRED ON CENTERLINE FOR DRIVEWAYS 12' TO 20' WIDE. DRIVEWAYS 24' TO 30' WIDE SHALL HAVE 2 W.P. JOINTS EVENLY SPACED (AT 1/3 AND 2/3 POINTS).
2. PLACE SCORE MARKS AT 1/4 POINTS ON DRIVEWAYS 12' TO 20' WIDE AND AT 1/6 POINTS ON DRIVEWAYS 24' TO 30' WIDE. SCORE MARK REQUIRED AT DRIVEWAY SLOPE BREAK PARALLEL TO EXISTING FACE OF CURB.
3. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.



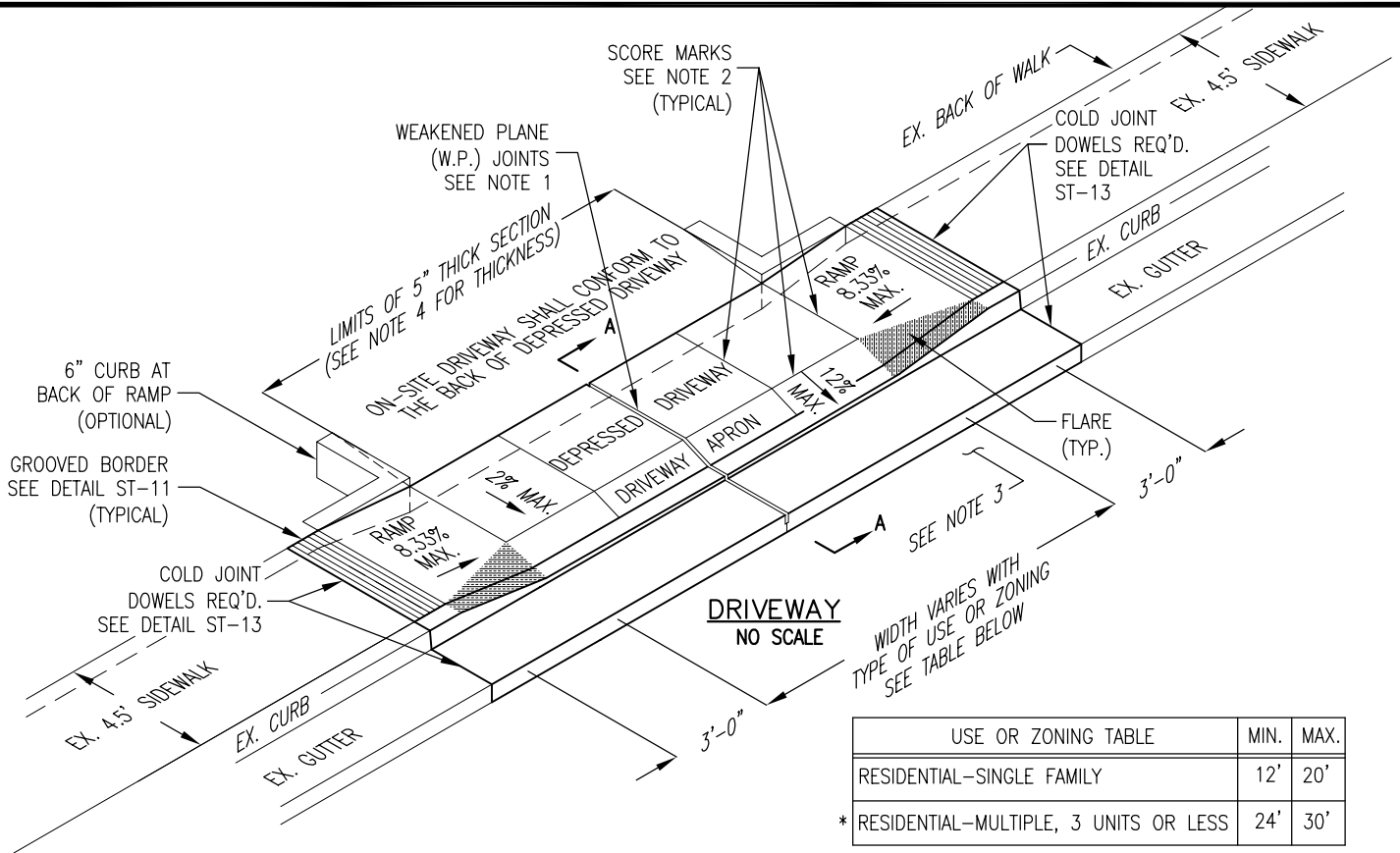
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**RESIDENTIAL DRIVEWAY WITH
SEPARATED SIDEWALK**

CITY OF SANTA CLARA

ST-2

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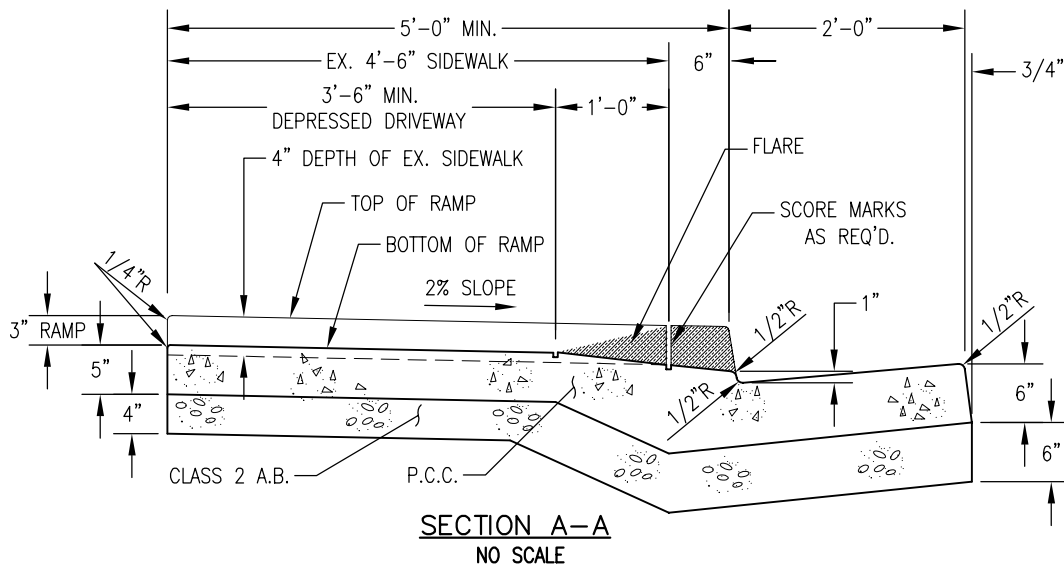


USE OR ZONING TABLE	MIN.	MAX.
RESIDENTIAL-SINGLE FAMILY	12'	20'
* RESIDENTIAL-MULTIPLE, 3 UNITS OR LESS	24'	30'

* MULTIPLE RESIDENTIAL DRIVEWAY WITH 4 UNITS OR MORE SHALL USE COMMERCIAL DRIVEWAY.

NOTES:

1. W.P. JOINTS REQUIRED ON CENTERLINE FOR DRIVEWAYS 12' TO 20' WIDE. DRIVEWAYS 24' TO 30' WIDE SHALL HAVE 2 W.P. JOINTS EVENLY SPACED (AT 1/3 AND 2/3 POINTS).
2. PLACE SCORE MARKS AT 1/4 POINTS ON DRIVEWAYS 12' TO 20' WIDE AND AT 1/6 POINTS ON DRIVEWAYS 24' TO 30' WIDE. SCORE MARK REQUIRED AT DRIVEWAY SLOPE BREAK PARALLEL TO EXISTING FACE OF CURB.
3. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.
4. DEPRESSED DRIVEWAY AND DRIVEWAY APRON SHALL HAVE A THICKNESS OF 5" P.C.C. OVER 4" A.B. THICKNESS OF CONCRETE SHALL INCREASE FROM 4" AT TOP OF RAMPS TO 5" AT BOTTOM OF RAMPS. GROOVED BORDERS, RAMPS, DEPRESSED DRIVEWAY, DRIVEWAY APRON, CURB AND GUTTER SHALL BE MONOLITHIC.



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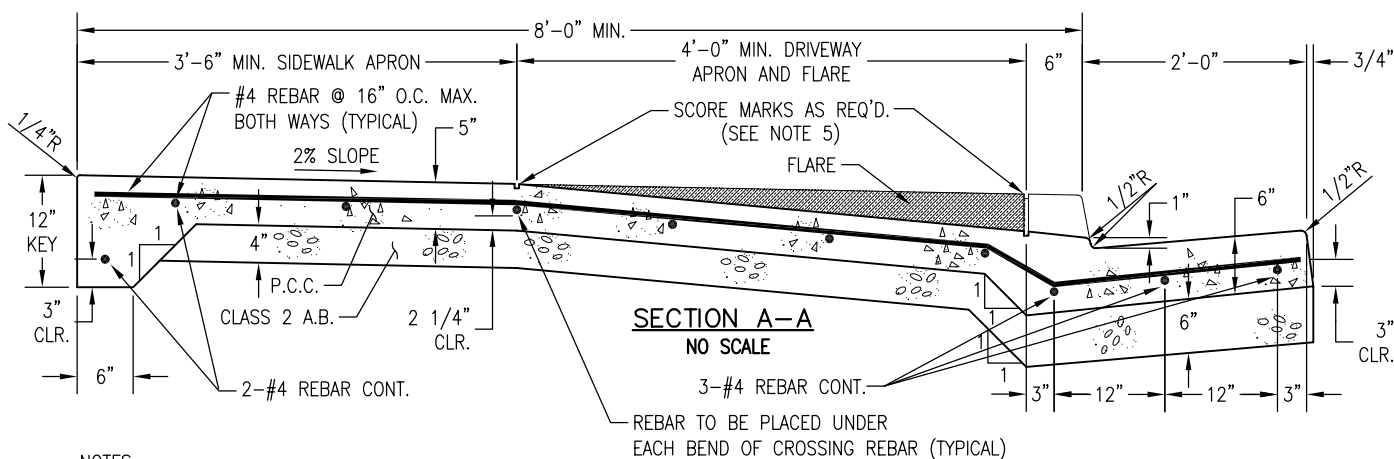
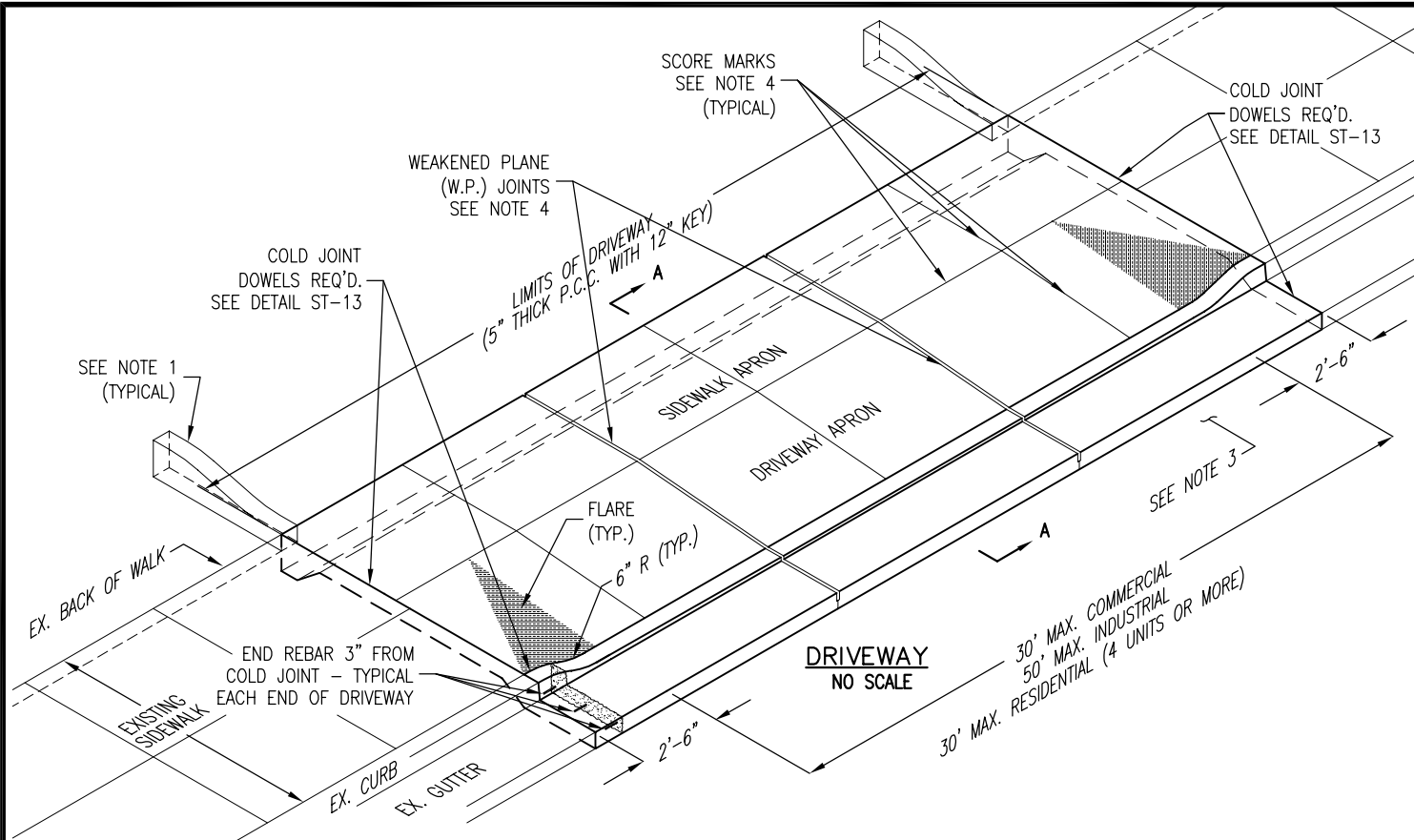
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DEPRESSED DRIVEWAY FOR EX. 5' ATTACHED SIDEWALK

CITY OF SANTA CLARA

ST-3

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NOTES:

1. CONCRETE CURB SHALL NOT ENCROACH INTO PUBLIC RIGHT-OF-WAY AND SHALL BE FLUSH AT BACK OF WALK.
2. COMMERCIAL DRIVEWAY SHALL BE INSTALLED IN ZONES DESIGNATED COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL WITH 4 UNITS OR MORE.
3. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.
4. JOINT/SCORE MARK TABLE:

DRIVEWAY WIDTH		WEAKENED PLANE JOINT		SCORE MARKS	
MIN.	MAX.	NO. OF JOINTS	LOCATION POINT	NO. OF MARKS	LOCATION POINT
24'	30'	2	1/3, 2/3	3	1/6, 1/2, 5/6
>30'	40'	3	1/4, 1/2, 3/4	4	1/8, 3/8, 5/8, 7/8
>40'	50'	4	1/5, 2/5, 3/5, 4/5	5	1/10, 3/10, 1/2, 7/10, 9/10

SCORE MARK REQUIRED AT DRIVEWAY SLOPE BREAK PARALLEL TO EXISTING FACE OF CURB



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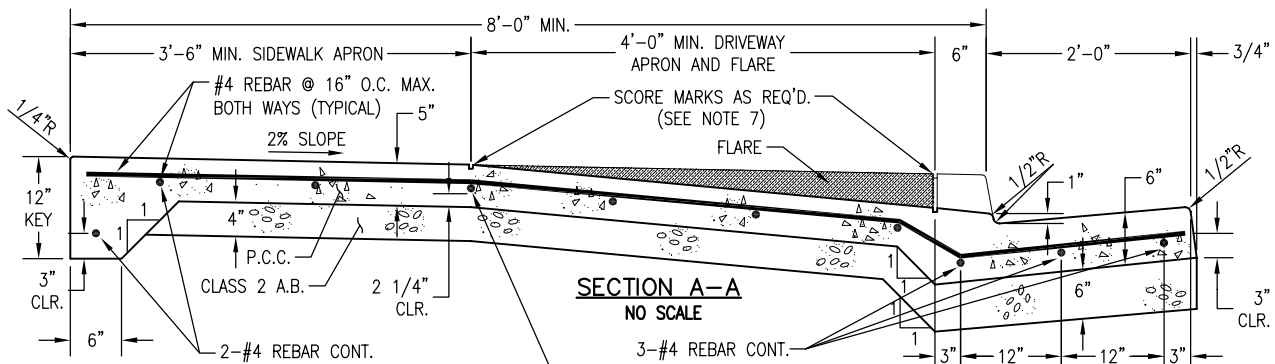
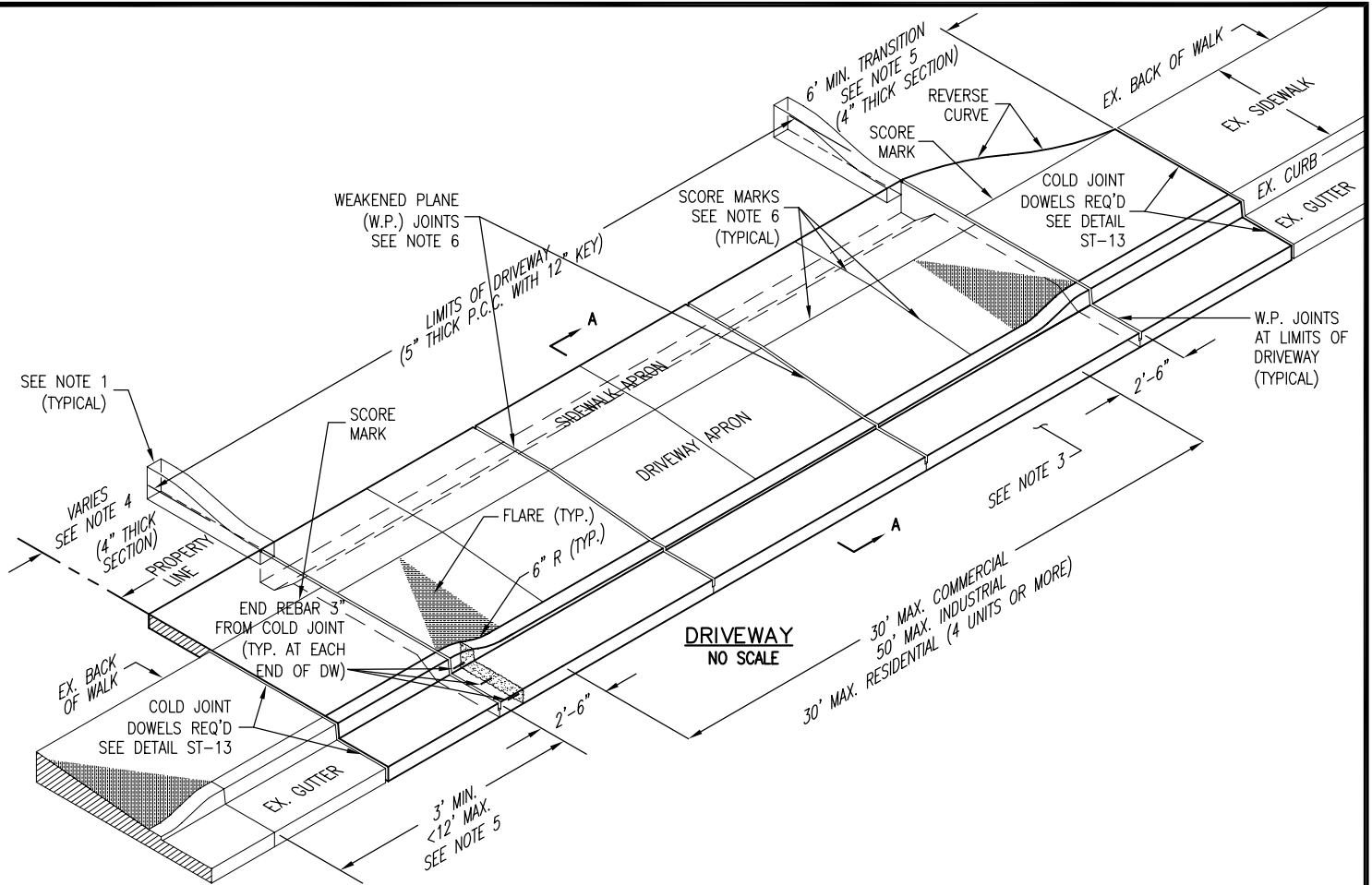
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COMMERCIAL DRIVEWAY WITH/ WITHOUT SEPARATED SIDEWALK

CITY OF SANTA CLARA

ST-4

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NOTES:

1. CONCRETE CURB SHALL NOT ENCRoACH INTO PUBLIC RIGHT-OF-WAY AND SHALL BE FLUSH AT BACK OF WALK.
2. COMMERCIAL DRIVEWAY SHALL BE INSTALLED IN ZONES DESIGNATED COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL WITH 4 UNITS OR MORE.
3. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.
4. WHERE THE DISTANCE BETWEEN NEW DRIVEWAY LIMIT AND PROPERTY LINE IS LESS THAN 6 FEET AT THE BACK OF DRIVEWAY AND THERE IS AN ADJACENT DRIVEWAY LESS THAN 12 FEET DISTANCE AWAY, THE SIDEWALK SHALL NOT TRANSITION. NEW SIDEWALK SHALL TERMINATE AT PROPERTY LINE.
5. WHERE THE DISTANCE BETWEEN NEW DRIVEWAY AND PROPERTY LINE IS EQUAL TO OR GREATER THAN 6 FEET AT THE BACK OF DRIVEWAY AND THERE IS NO ADJACENT DRIVEWAY WITHIN 12 FEET DISTANCE OF NEW DRIVEWAY, THE SIDEWALK SHALL TRANSITION FROM BACK OF DRIVEWAY TO EXISTING SIDEWALK.
6. JOINT/SCORE MARK TABLE:

DRIVEWAY WIDTH		WEAKENED PLANE JOINT		SCORE MARKS	
MIN.	MAX.	NO. OF JOINTS	LOCATION POINT	NO. OF MARKS	LOCATION POINT
24'	30'	2		3	1/6, 1/2, 5/6
>30'	40'	3	1/4, 1/2, 3/4	4	1/8, 3/8, 5/8, 7/8
>40'	50'	4	1/5, 2/5, 3/5, 4/5	5	1/10, 3/10, 1/2, 7/10, 9/10

SCORE MARK REQUIRED AT DRIVEWAY SLOPE BREAK PARALLEL TO EXISTING FACE OF CURB



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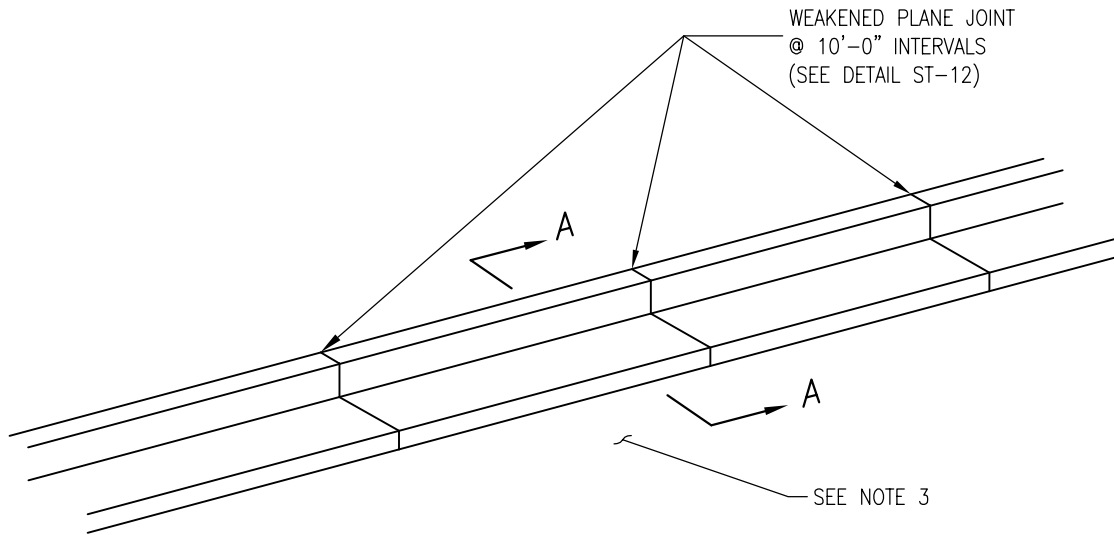
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COMMERCIAL DRIVEWAY WITH ATTACHED SIDEWALK

CITY OF SANTA CLARA

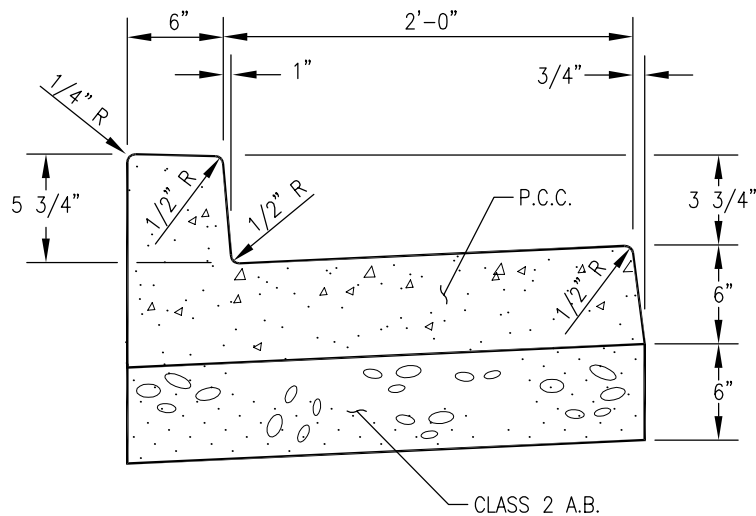
ST-5

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CURB GUTTER

NO SCALE



SECTION A-A

NO SCALE

NOTES:

1. EXPANSION JOINTS (SEE DETAIL ST-12) SHALL BE INSTALLED AT MAJOR STRUCTURES AND CURB RETURNS.
2. TOLERANCE OF THE VERTICAL DIMENSION AT FACE OF CURB AND LIP OF GUTTER SHALL BE $1/4" \pm$.
3. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.



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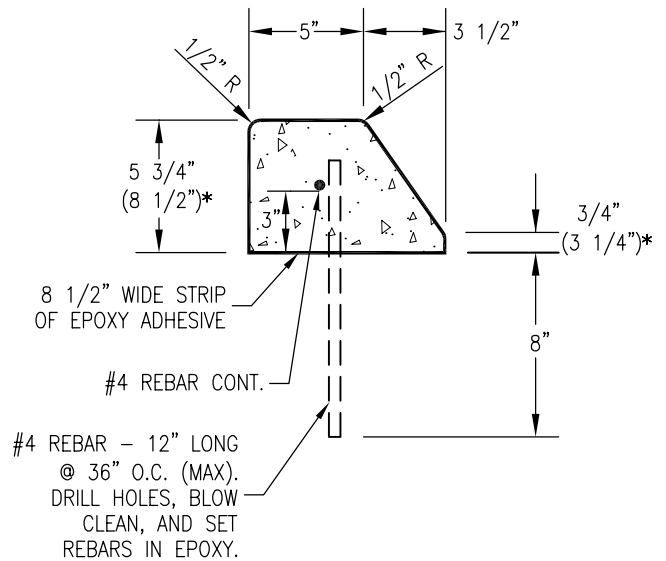
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MONOLITHIC CURB AND GUTTER

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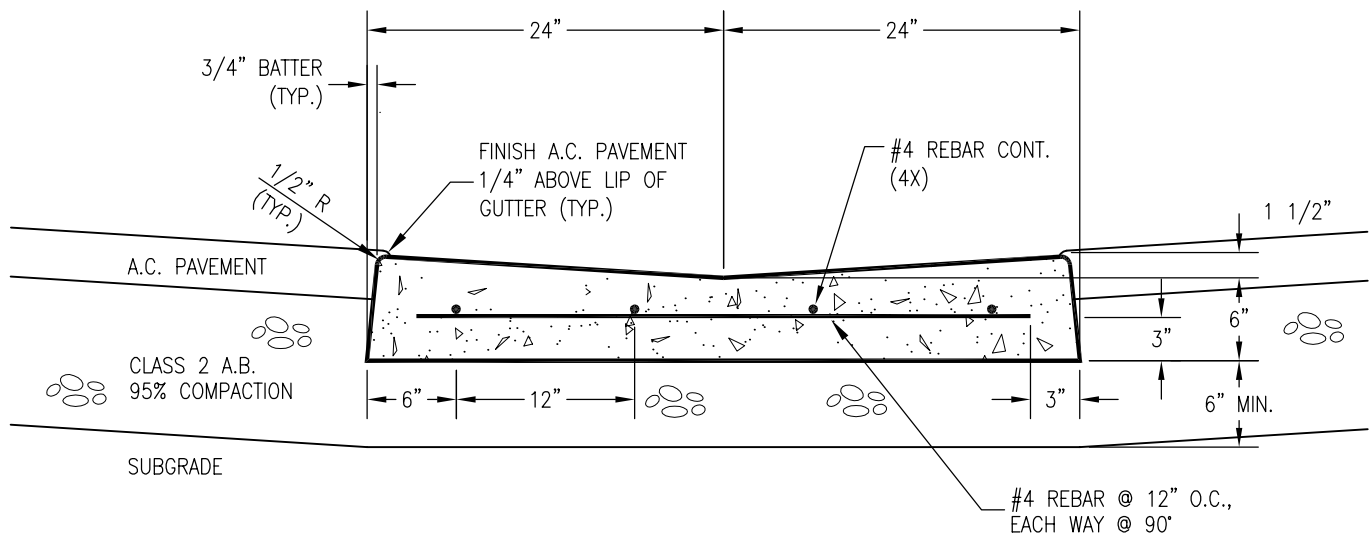
ST-6

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TYPE B-6 & B-8 CURBS
NO SCALE

NOTE: *DIMENSIONS SHOWN IN PARENTHESES
ABOVE ARE FOR TYPE B-8 CURB ONLY.



VALLEY GUTTER
NO SCALE

NOTES:

1. CONCRETE VALLEY GUTTER SHALL BE INSTALLED PRIOR TO PAVING.
2. INSTALL WEAKENED PLANE JOINTS AT 10' INTERVALS (MAX).
3. 18" WIDE BANDS OF PAVEMENT ON EACH SIDE OF NEW VALLEY GUTTER SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS..



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CONCRETE MEDIAN CURBS AND VALLEY GUTTER

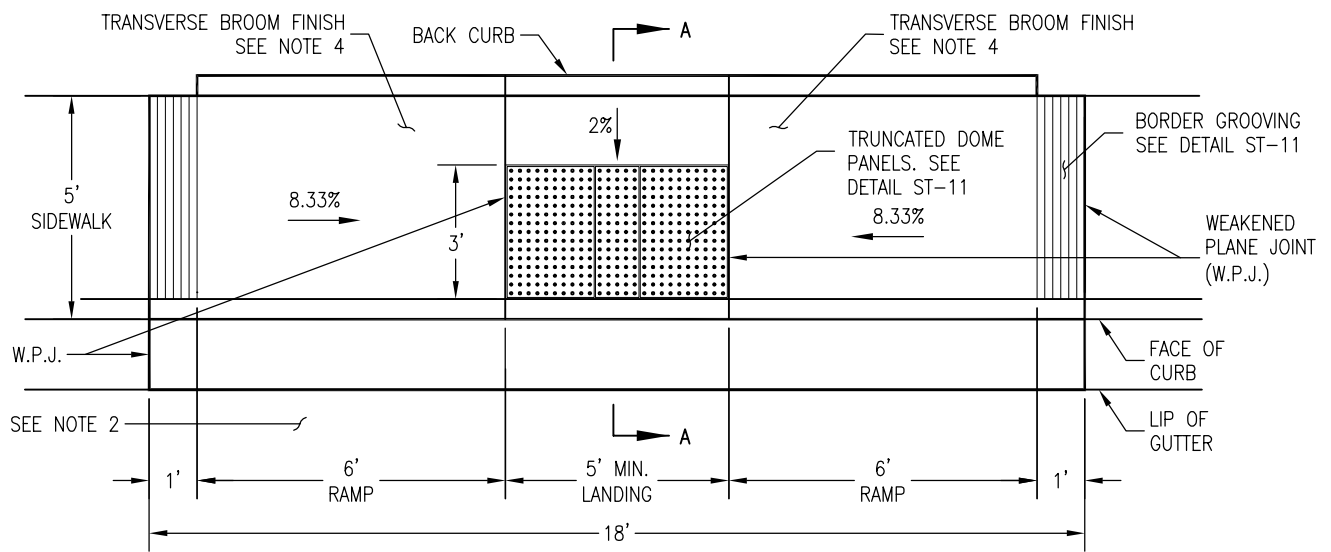
CITY OF SANTA CLARA

ST-8

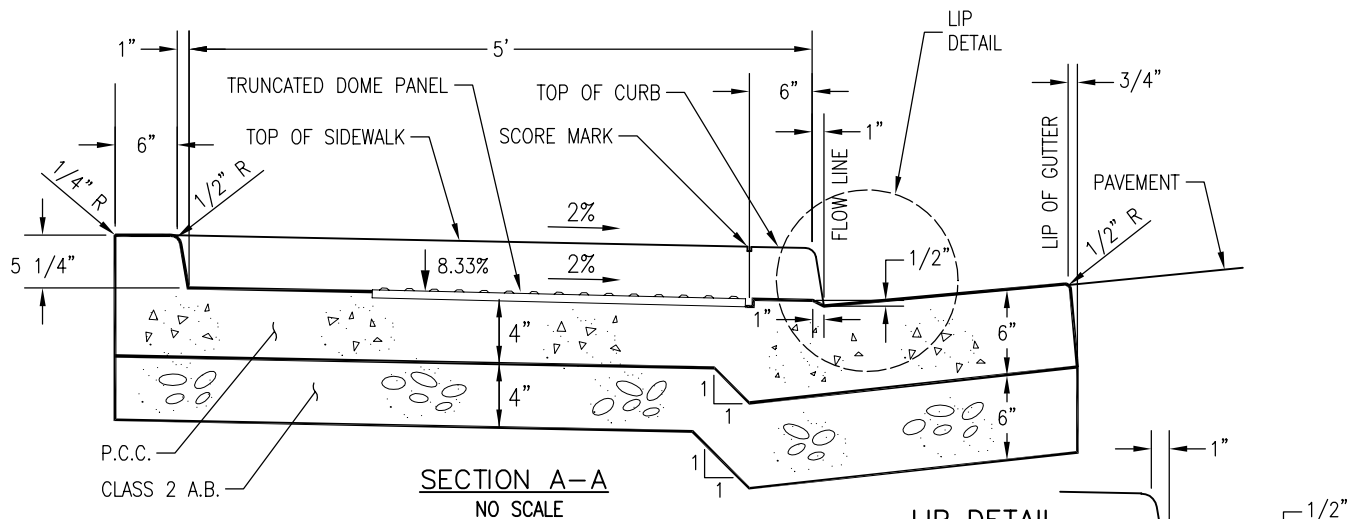
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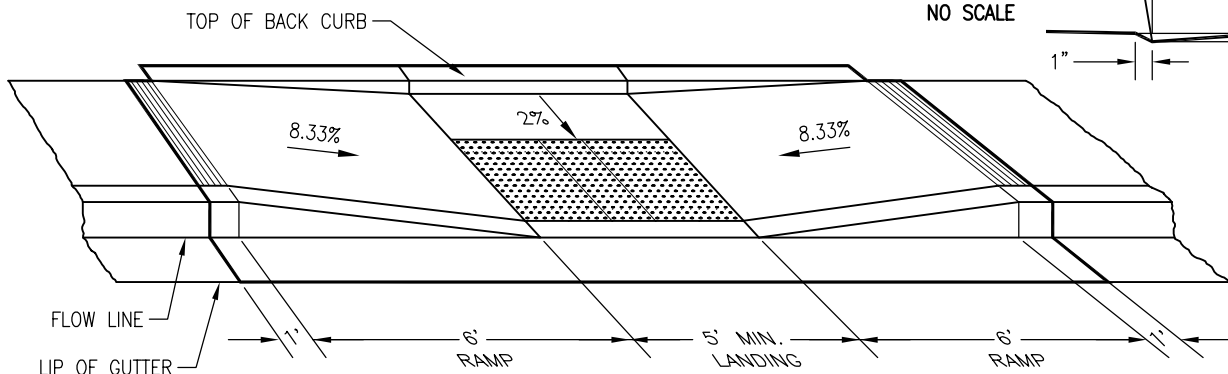


PLAN VIEW
NO SCALE



SECTION A-A
NO SCALE

LIP DETAIL
NO SCALE



ELEVATION VIEW
NO SCALE

NOTES:

1. CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES (GROOVING AND TRUNCATED DOMES). SEE DETAIL ST-11 FOR GROOVING DETAILS AND TRUNCATED DOME DETAILS.
2. 18" WIDE BAND OF PAVEMENT SHALL BE REMOVED AND REPLACED. SEE NOTE 5 OF GENERAL NOTES (APPENDIX A) FOR REQUIREMENTS.
3. CURB RAMPS FOR SEPARATED SIDEWALKS SHALL BE DESIGNED ON AN INDIVIDUAL BASIS.
4. THE SURFACE OF RAMP SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.



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STRAIGHT CURB RAMP

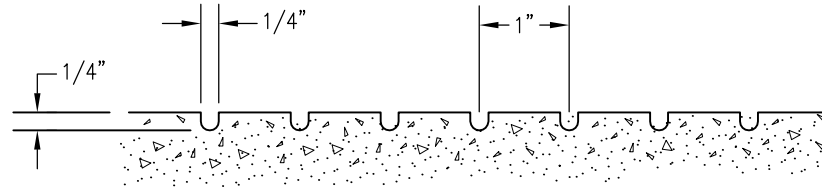
CITY OF SANTA CLARA

ST-10

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NOTES:

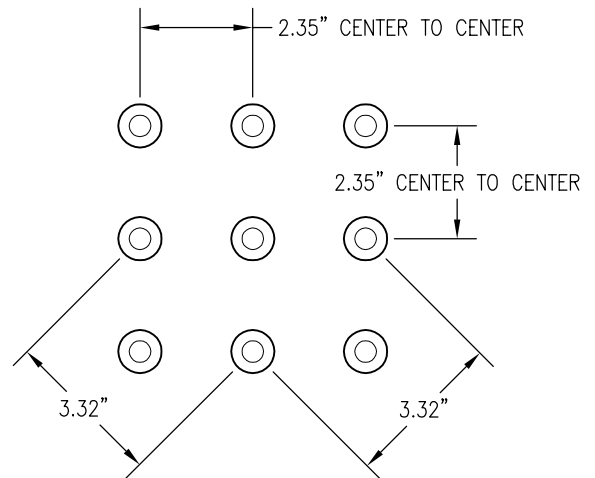
1. THE CURB RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 1" O.C. SEE BORDER GROOVING DETAIL.



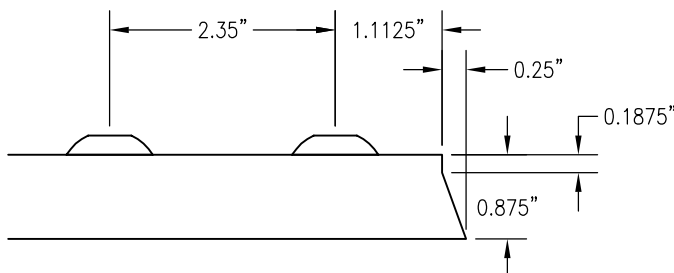
BORDER GROOVING DETAIL

NOTES:

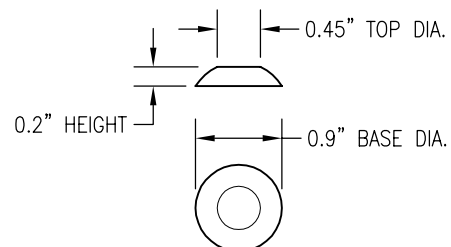
1. THE DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES EXTENDING THE FULL WIDTH OF AND 3'0" DEPTH OF THE CURB RAMP LANDING.
2. THE RAISED TRUNCATED DOME PANELS SHALL BE CENTERED AND SQUARED ON THE CURB RAMP.
3. THE RAISED TRUNCATED DOME PANELS SHALL BE CONCRETE, CASTinTACT™ MANUFACTURED BY MASCO, OR APPROVED EQUAL.
4. THE COLOR OF THE RAISED TRUNCATED DOMES SHALL BE "SAFETY YELLOW".
5. THE EDGE OF THE RAISED TRUNCATED DOME PANEL NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.
6. ALL TRUNCATED DOME DIMENSIONS HEREIN ARE NOMINAL.



RAISED TRUNCATED DOME
PATTERN (IN-LINE)



TRUNCATED DOME PANEL WEDGE DETAIL



RAISED TRUNCATED DOME



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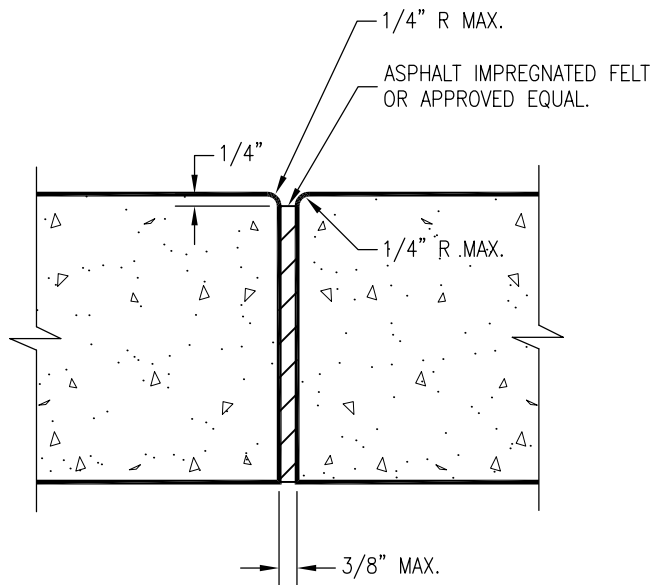
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**CURB RAMP GROOVING AND
TRUNCATED DOME DETAILS**

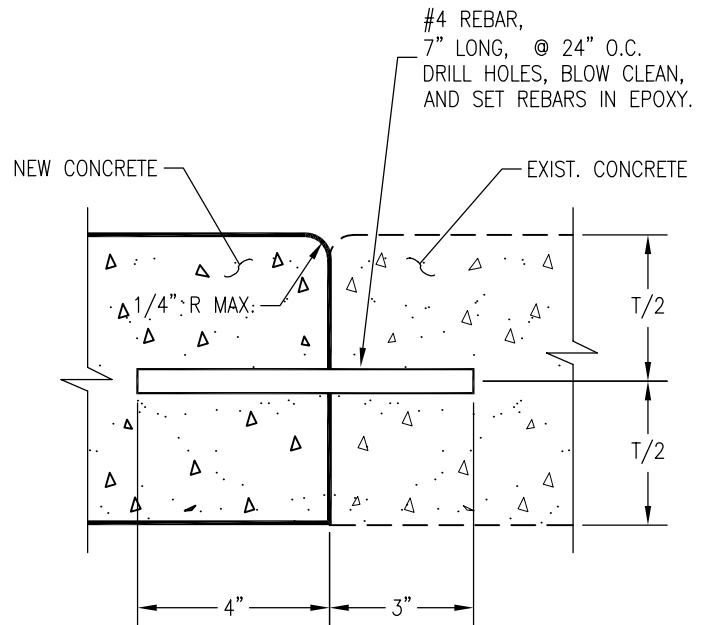
CITY OF SANTA CLARA

ST-11

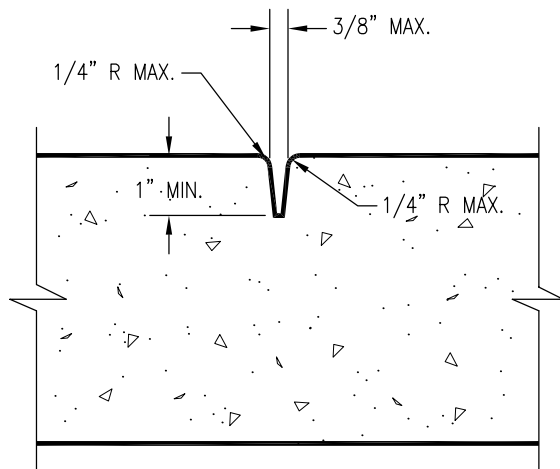
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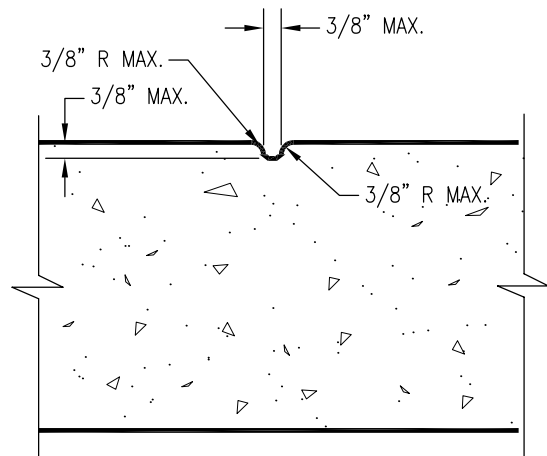
EXPANSION JOINT



SIDEWALK CONTACT JOINT
"COLD JOINT"



WEAKENED PLANE JOINT
"DEEP JOINT"



SCORE MARK
"DUMMY JOINT"



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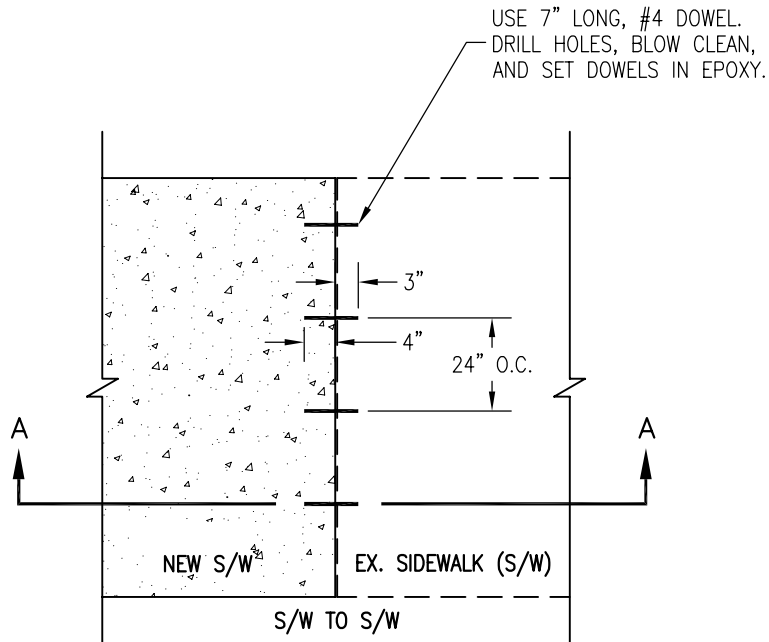
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CONCRETE JOINTS

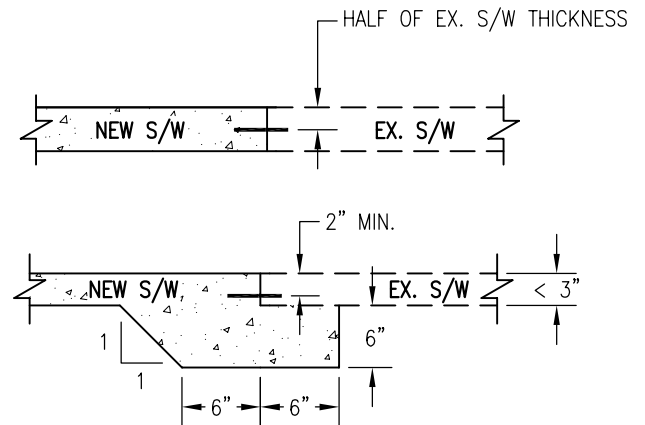
CITY OF SANTA CLARA

ST-12

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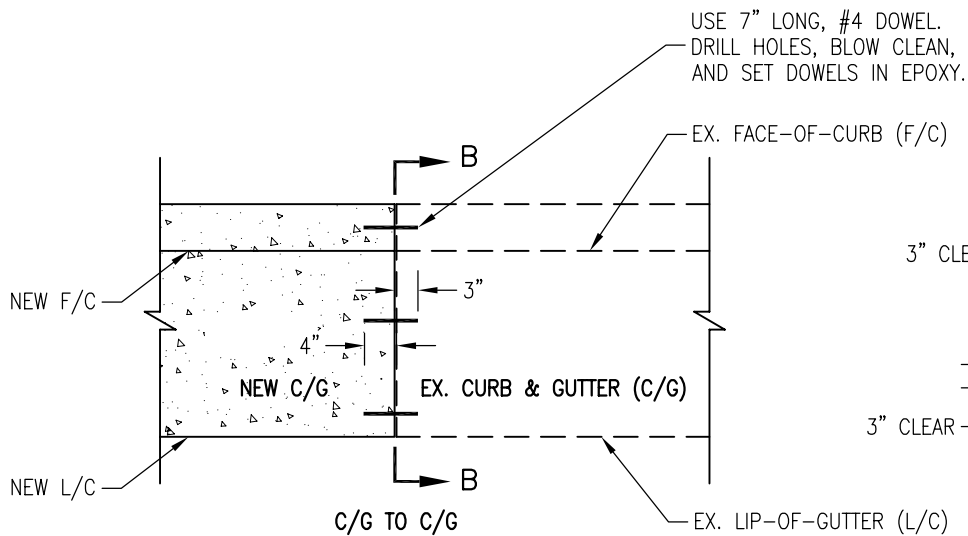
PLAN VIEW
NO SCALE



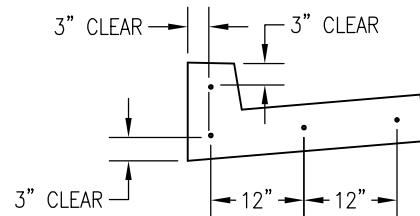
NOTE:

IF EXISTING SIDEWALK IS LESS THAN 3" THICK,
USE 6" DEEP X 12" WIDE P.C.C. KEY WITH
DOWEL CONNECTION.

SECTION A-A
NO SCALE



PLAN VIEW
NO SCALE



SECTION B-B
NO SCALE



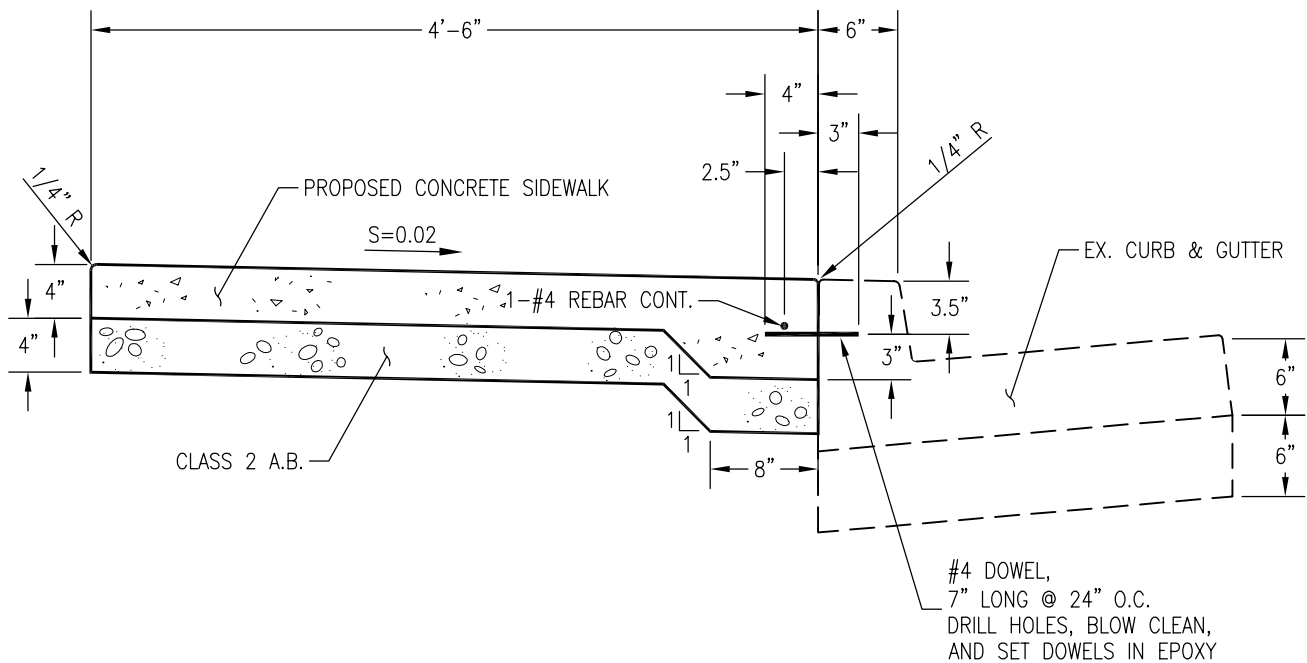
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APPROVED BY: G. GOMEZ
DATE: DECEMBER 2002

DOWEL CONNECTIONS

CITY OF SANTA CLARA

ST-13

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NOTES:

1. WHERE A NEW DRIVEWAY OCCURS, REPLACE EXISTING CURB AND GUTTER BETWEEN THE NEAREST JOINTS AND POUR CURB AND DRIVEWAY MONOLITHICALLY.
2. IF THE REAR FACE OF THE DRIVEWAY CURB DEPRESSION IS NOT AT LEAST 6 INCHES IN DEPTH, REMOVE AND REPLACE THE CURB DEPRESSION WITH A STANDARD MONOLITHIC DRIVEWAY.
3. WHERE IT BECOMES NECESSARY FOR ANY REASON TO REPLACE CURB AND/OR GUTTER, REPLACEMENT MUST BE MONOLITHIC.
4. IF TOP OF EXISTING CURB DOES NOT DRAIN TOWARDS THE STREET, REMOVE CURB AND GUTTER AND REPLACE WITH MONOLITHIC CURB, GUTTER, AND SIDEWALK.



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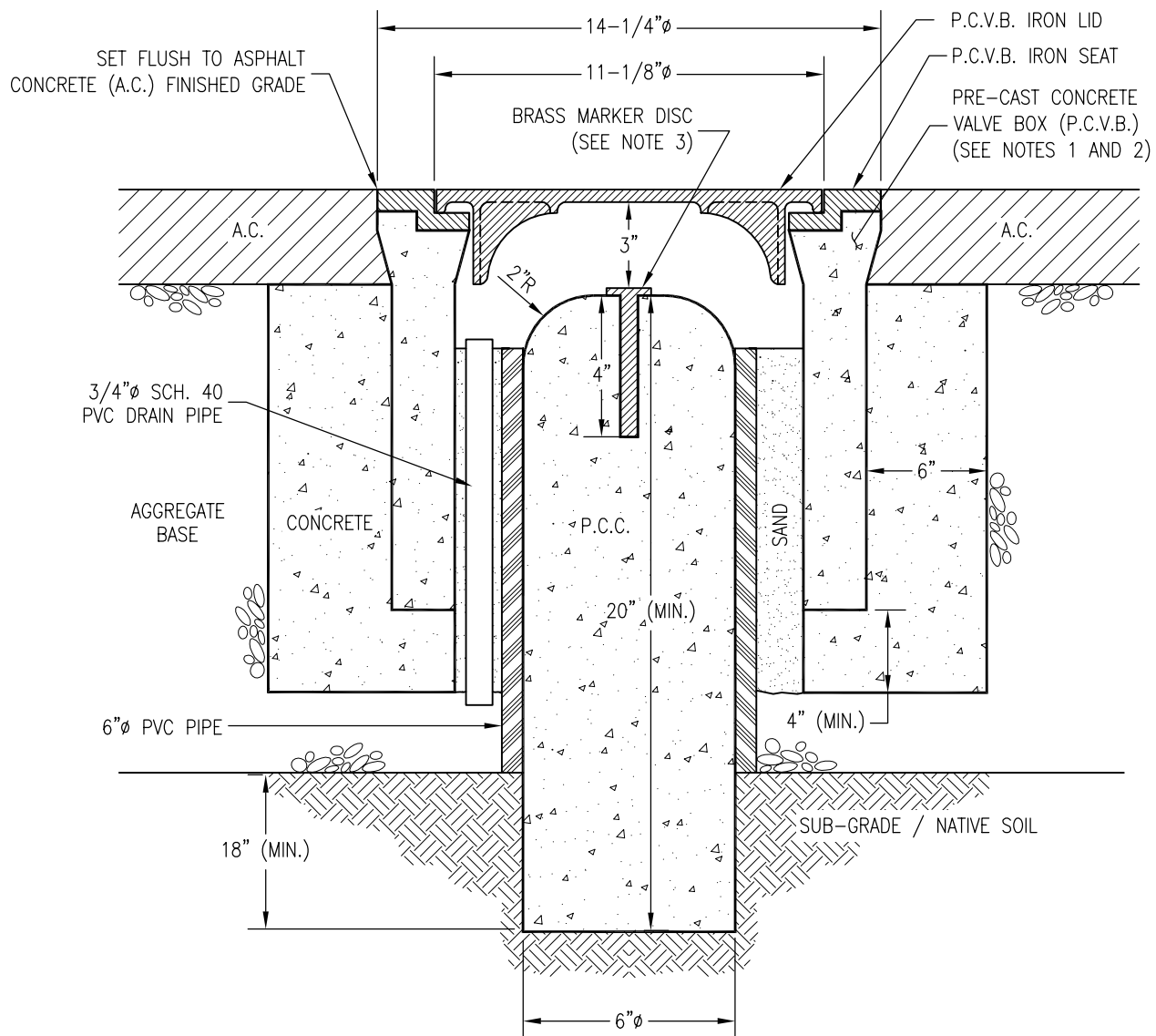
DATE: NOVEMBER 2005

**SIDEWALK TO CURB
CONNECTION**

CITY OF SANTA CLARA

ST-14

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NOTES:

1. PRE-CAST BOX, SEAT, AND LID SHALL BE CHRISTY CONCRETE PRODUCT MODEL G5 TRAFFIC VALVE BOX OR APPROVED EQUAL.
2. SURFACE OF LID SHALL BE LABELED "MONUMENT" ENGRAVED IN 1" HIGH LETTERS.
3. BRASS MARKER DISC SHALL BE ENGRAVED WITH RESPONSIBLE LICENSED SURVEYOR OR CIVIL ENGINEER REGISTRATION NO. AND MONUMENT POINT PUNCHED.
4. CONCRETE SHALL BE CLASS "A".
5. PLACE CONCRETE FOR MONUMENT IN DRILLED HOLE.
6. LOCKING GRADE RINGS (NOT SHOWN) SHALL BE INSTALLED WITH 3/8"x1" NC BOLT AND JAM NUT (IN 3 PLACES) WHEN STREET IS RESURFACED TO BRING MONUMENT LID FLUSH WITH NEW FINISHED GRADE.

LOCKING GRADE RINGS	
CHRISTY NO.	DESCRIPTION
G5GR10	1" HIGH CAST IRON
G5GR15	1-1/2" HIGH CAST IRON
G5GR20	2" HIGH CAST IRON



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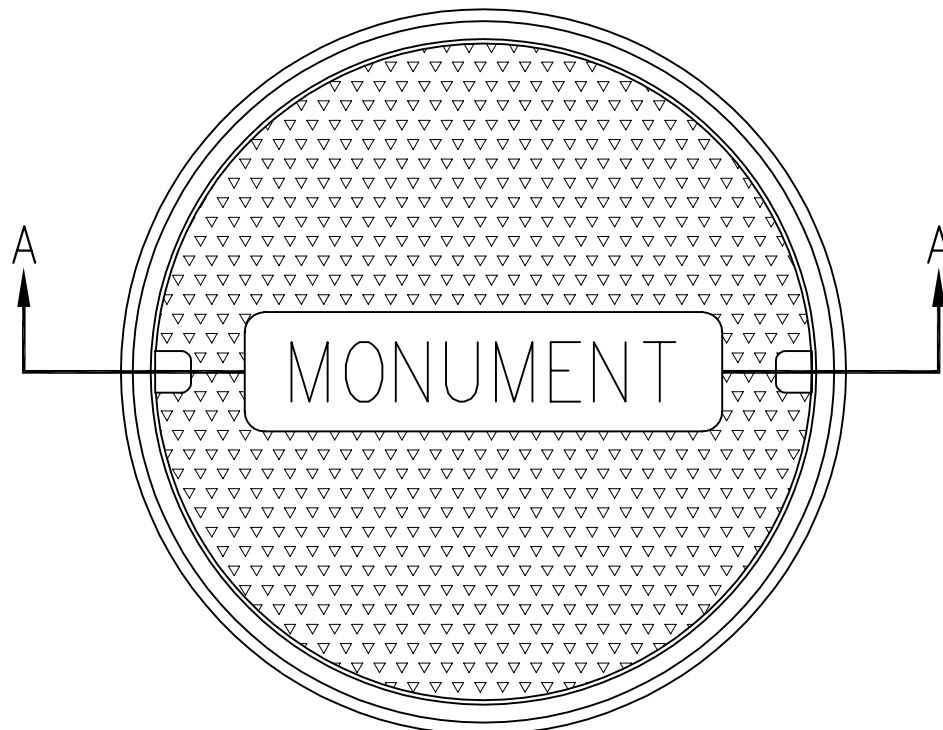
DATE: **DECEMBER 2002**

MONUMENT

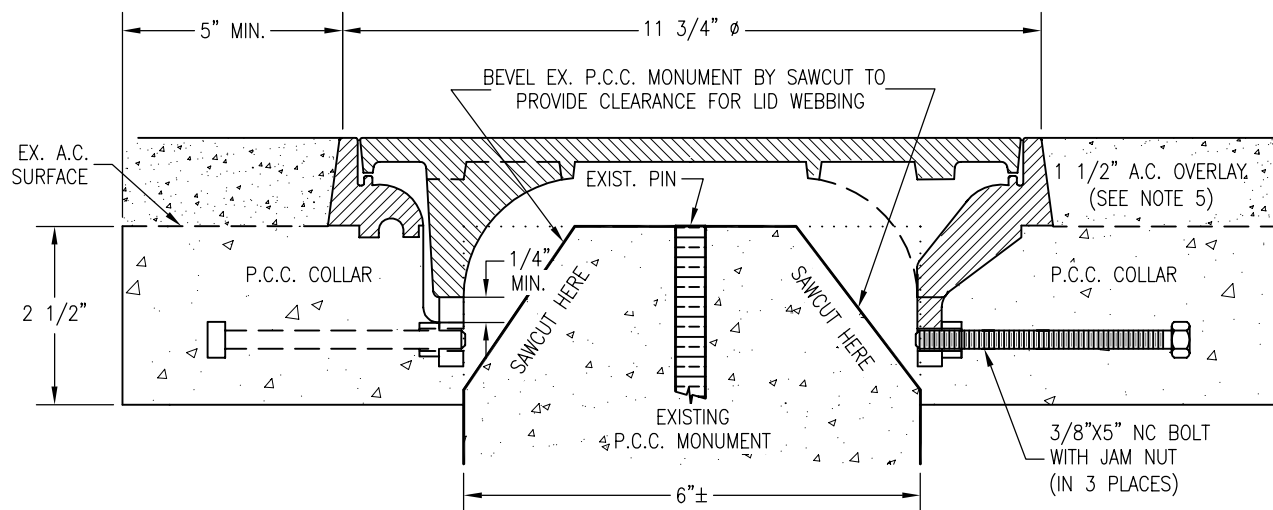
CITY OF SANTA CLARA

ST-15

PAGE: 15



TOP VIEW
NO SCALE



SECTION A-A
NO SCALE

NOTES:

1. WHERE AN EXISTING MONUMENT BOX CANNOT BE ADJUSTED TO GRADE WITH IRON EXTENSION RINGS, THE OLD BOX SHALL BE COMPLETELY REMOVED AND A NEW MONUMENT BOX INSTALLED. THIS ADJUSTMENT IS ALSO APPLICABLE TO MONUMENTS WHICH DO NOT HAVE MONUMENT BOXES.
2. MAINTAIN AT LEAST 1/4 INCH CLEARANCE BETWEEN LEGS OF THE NEW COVER AND THE CONCRETE COLLAR.
3. THE BEVELING OF THE EXISTING MONUMENT MUST BE SAW CUT. EXERCISE EXTREME CARE TO AVOID DAMAGE TO PIN.
4. ON STREETS WITH OVERLAY THICKNESS OF 2 1/2" OR 3", PROVIDE ADDITIONAL LOCKING GRADE RINGS COMBINED TO MATCH OVERLAY THICKNESS. ON STREETS WITH 2" OVERLAY, PROVIDE 2" GRADE RING. LOCKING GRADE RINGS AND COVER SHALL BE CHRISTY PRODUCTS FOR G5 TRAFFIC VALVE BOX OR APPROVED EQUAL (SEE DETAIL ST-14).
5. IF THE STABILITY OR LOCATION OF THE EXISTING MONUMENT IS AFFECTED BY THE SAWCUTTING, THE CONTRACTOR SHALL, AT HIS EXPENSE, FILE A CORNER RECORD WITH THE COUNTY SURVEYOR AND INSTALL A REPLACEMENT STANDARD MONUMENT.



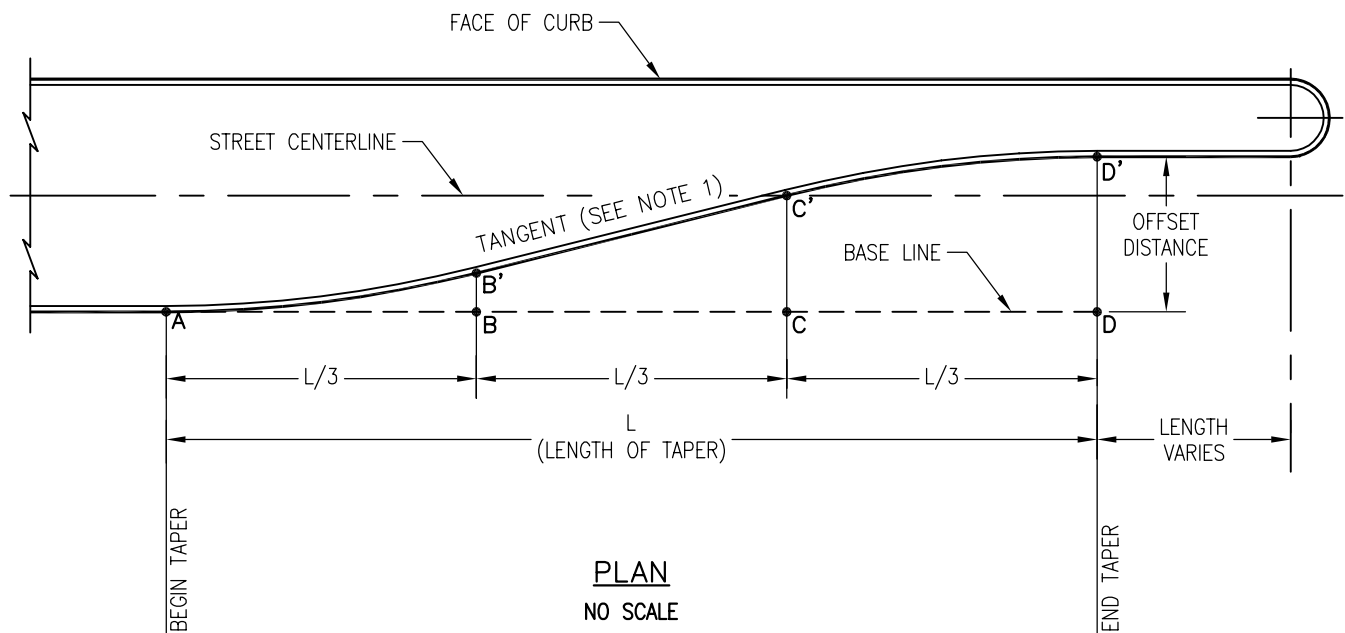
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**SPECIAL MONUMENT BOX
ADJUSTMENT**

CITY OF SANTA CLARA

ST-16

PAGE: 16



LENGTH OF TAPER (FEET)			OFFSET DISTANCE (FEET)			
L=60'	L=90'	L=120'	DD'=10'	DD'=11'	DD'=12'	
DISTANCE FROM POINT "A"						
0	0	0	0	0	0	
5	7.5	10	0.16	0.17	0.19	
10	15.0	20	0.62	0.69	0.75	
15	22.5	30	1.41	1.55	1.69	
B'	20	30.0	40	2.50	2.75	3.00
	30	45.0	60	5.00	5.50	6.00
C'	40	60.0	80	7.50	8.25	9.00
	45	67.5	90	8.59	9.45	10.31
	50	75.0	100	9.38	10.31	11.25
	55	82.5	110	9.84	10.83	11.81
D'	60	90.0	120	10.00	11.00	12.00

NOTES:

- WHERE STREET CENTERLINE IS A CURVE, NEITHER BASE LINE NOR TAPER BETWEEN B & C WILL BE A TANGENT. USE PROPORTIONAL OFFSETS FROM B TO C.
- L = AD = LENGTH OF TAPER
AB = BC = CD = $\frac{1}{3}$ L
BB' = $\frac{1}{3}$ CC' = $\frac{1}{4}$ DD'
AB' & C'D' ARE PARABOLIC CURVES



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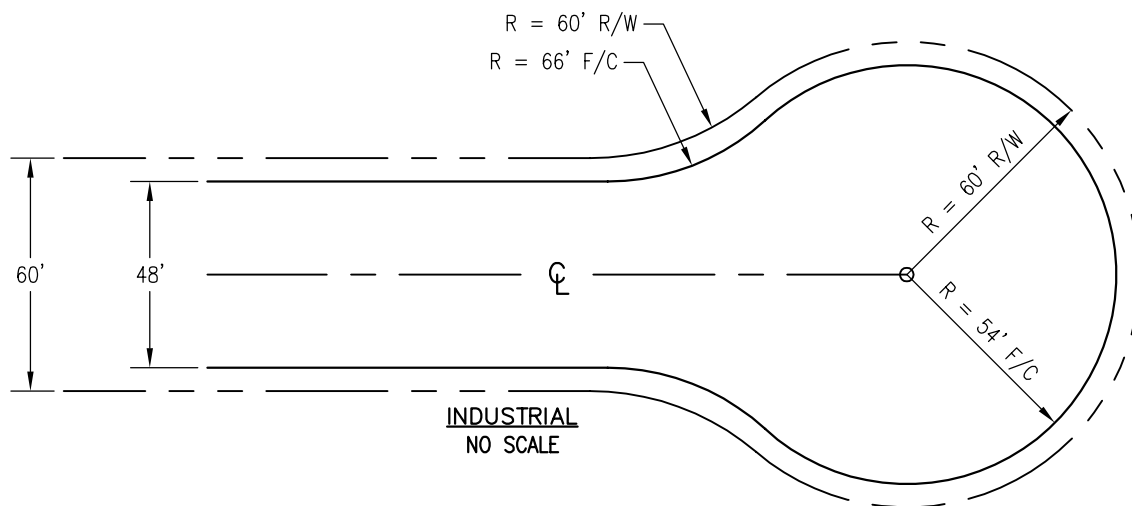
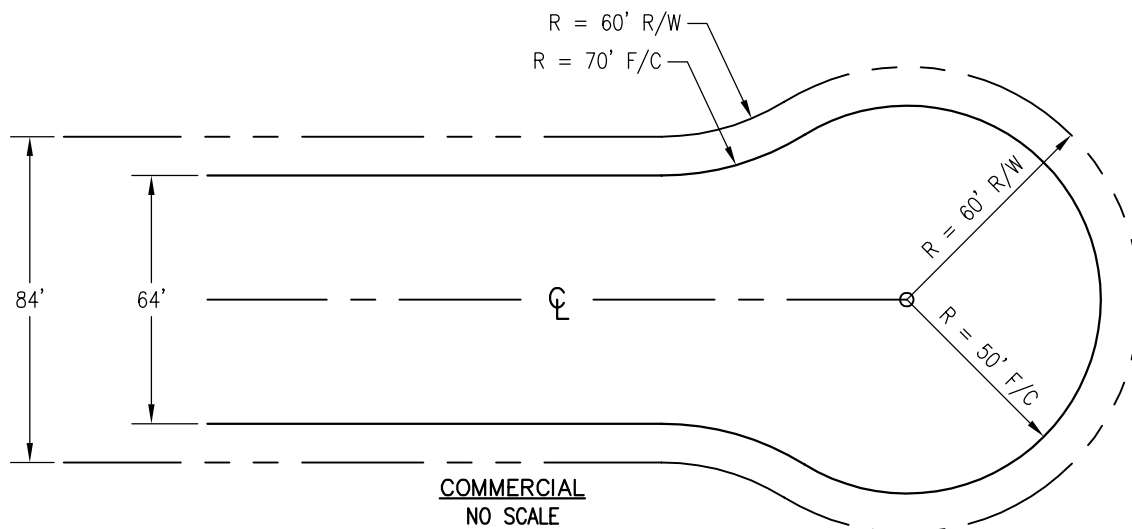
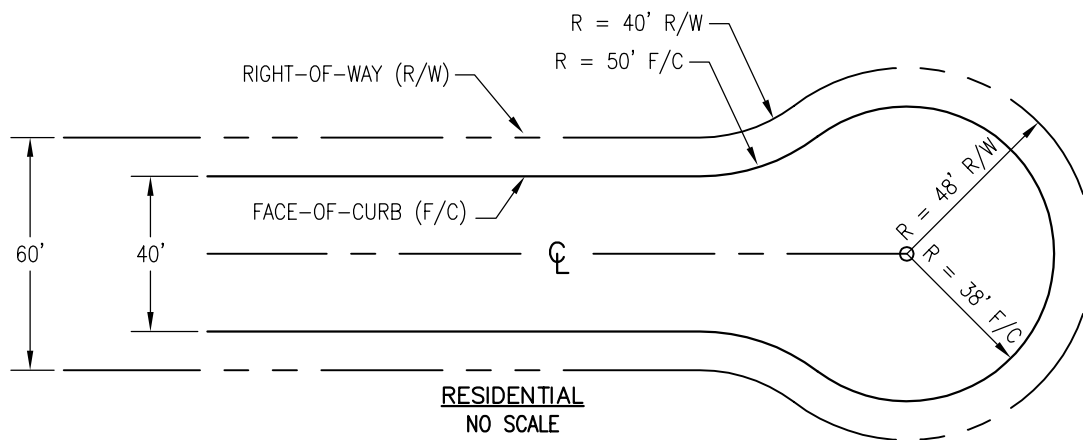
DATE: DECEMBER 2002

MEDIAN ISLAND
TAPER DETAIL

CITY OF SANTA CLARA

ST-17

PAGE: 17



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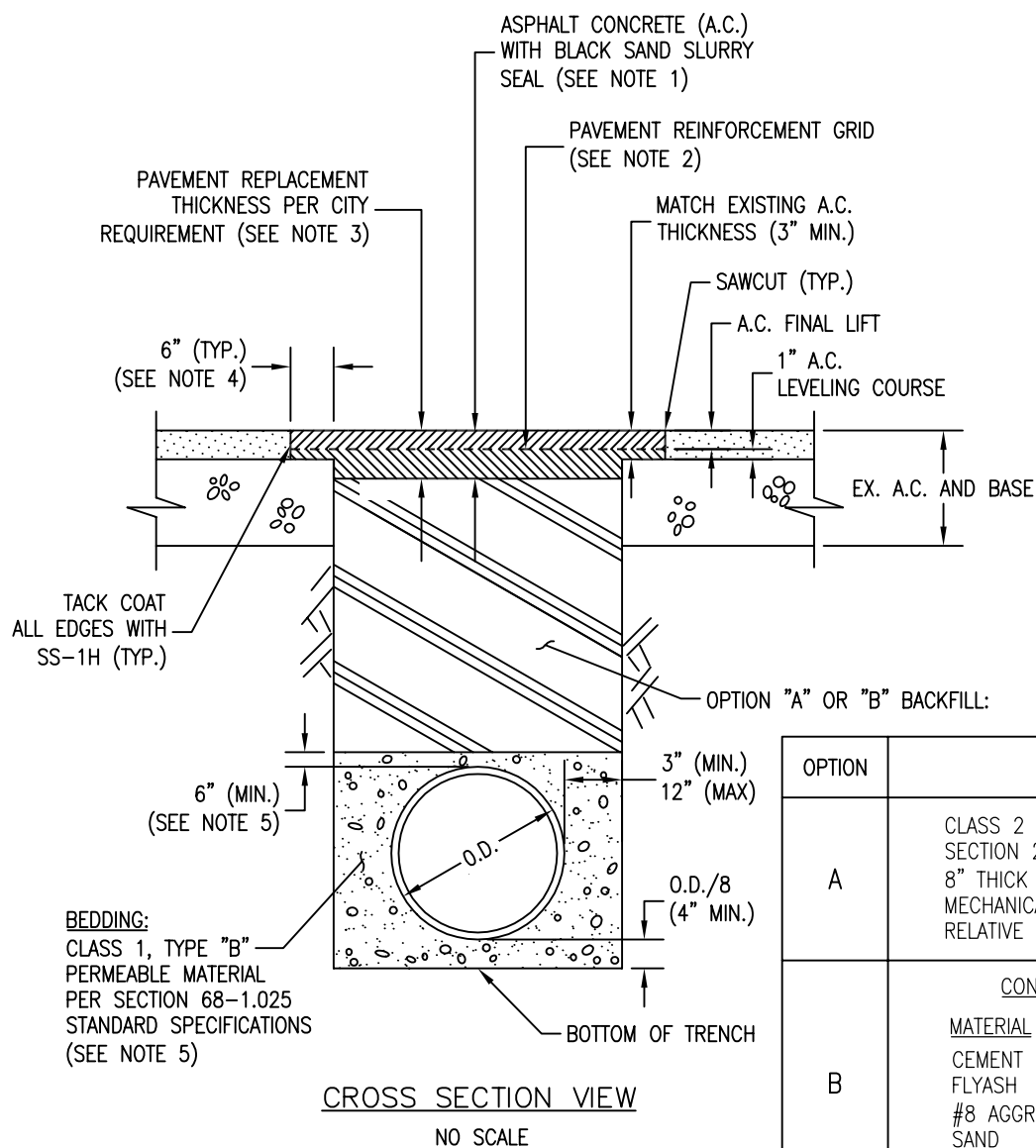
DATE: DECEMBER 2002

CUL-DE-SAC

CITY OF SANTA CLARA

ST-18

PAGE: 18



OPTION	DESCRIPTION																
A	CLASS 2 AGGREGATE BASE (3/4") PER SECTION 26 OF CALTRANS SPECIFICATIONS. 8" THICK (MAX.) UNCOMPACTED LIFTS. MECHANICALLY COMPACT TO AT LEAST 95% RELATIVE COMPACTION.																
B	<p><u>CONTROLLED DENSITY FILL (CDF)</u></p> <table> <tr> <th><u>MATERIAL</u></th><th><u>ABS. VOL.</u></th></tr> <tr> <td>CEMENT</td><td>0.15</td></tr> <tr> <td>FLYASH</td><td>1.98</td></tr> <tr> <td>#8 AGGREGATE</td><td>8.97</td></tr> <tr> <td>SAND</td><td>8.27</td></tr> <tr> <td>WATER</td><td>6.02</td></tr> <tr> <td>AIR</td><td>1.61</td></tr> <tr> <td></td><td><hr/>27.00</td></tr> </table>	<u>MATERIAL</u>	<u>ABS. VOL.</u>	CEMENT	0.15	FLYASH	1.98	#8 AGGREGATE	8.97	SAND	8.27	WATER	6.02	AIR	1.61		<hr/> 27.00
<u>MATERIAL</u>	<u>ABS. VOL.</u>																
CEMENT	0.15																
FLYASH	1.98																
#8 AGGREGATE	8.97																
SAND	8.27																
WATER	6.02																
AIR	1.61																
	<hr/> 27.00																

NOTES:

1. BLACK SAND SLURRY SEAL SHALL BE EXTENDED 12" BEYOND THE A.C. PAVEMENT REPLACEMENT LIMIT.
2. GLASGRID®8512 PAVEMENT REINFORCEMENT GRID (OR APPROVED EQUAL) SHALL BE INSTALLED (FULL WIDTH & LENGTH OF TRENCH) IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION FOR TRENCH IN STREETS LISTED IN APPENDIX C.
3. A.C. PAVEMENT REPLACEMENT SHALL BE FULL DEPTH A.C. WITH THICKNESS PER CITY REQUIREMENT. SEE "TRENCH PAVEMENT THICKNESS REQUIREMENTS" (APPENDIX C) FOR REQUIREMENTS OF A PARTICULAR STREET.
4. THE 6" BENCH SECTION FOR A.C. SHALL BE CUT AND REMOVED IMMEDIATELY PRIOR TO FINISH PAVING OPERATIONS.
5. FOR WATER MAINS AND LATERALS, BEDDING SHALL BE SAND, EXTENDING 12" OVER TOP OF PIPE.



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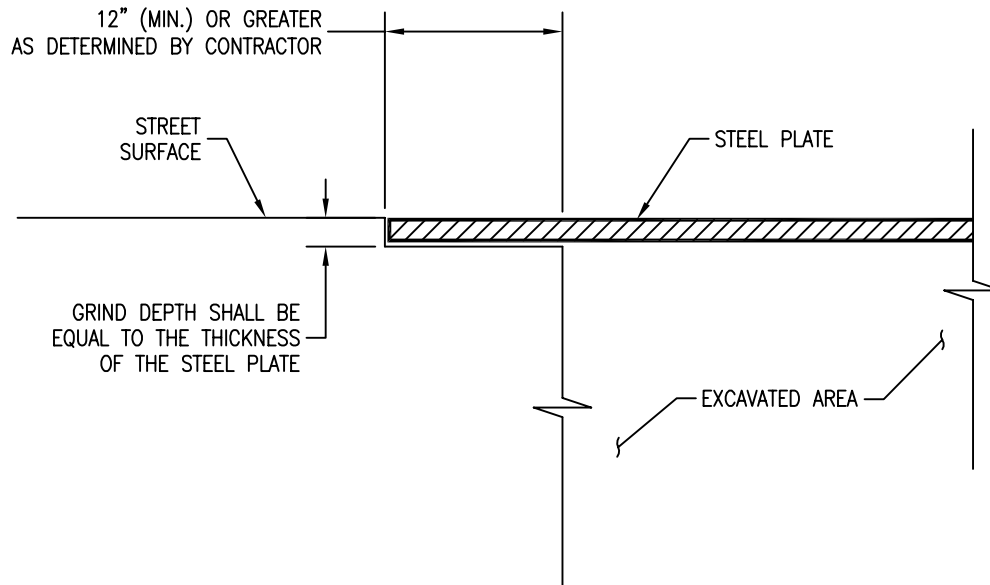
DATE: DECEMBER 2005

TRENCH BACKFILL AND PAVEMENT REPLACEMENT

CITY OF SANTA CLARA

ST-19

PAGE: 19



CROSS SECTION VIEW

NO SCALE

NOTES:

1. THE PLATE BENCHING DETAIL (SHOWN ABOVE) SHALL BE USED ON STREETS WITH A POSTED SPEED LIMIT OF 35 MPH OR HIGHER.
2. NAILS, COLD PATCH ASPHALT, ETC., MAY BE USED TO HOLD THE STEEL PLATE IN PLACE, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER OR DESIGNEE.
3. IF THE GAP BETWEEN THE STREET SURFACE AND THE STEEL PLATE EXCEEDS 1 INCH, THE GAP SHALL BE FILLED WITH COLD PATCH ASPHALT.
4. THE EXCAVATION AREA SHALL BE BACKFILLED, AND THE PAVEMENT SHALL BE RESTORED WITHIN 5 WORKING DAYS OF THE COMPLETION OF THE PERMITTED WORK.



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STEEL PLATE BENCHING DETAIL

CITY OF SANTA CLARA

ST-20

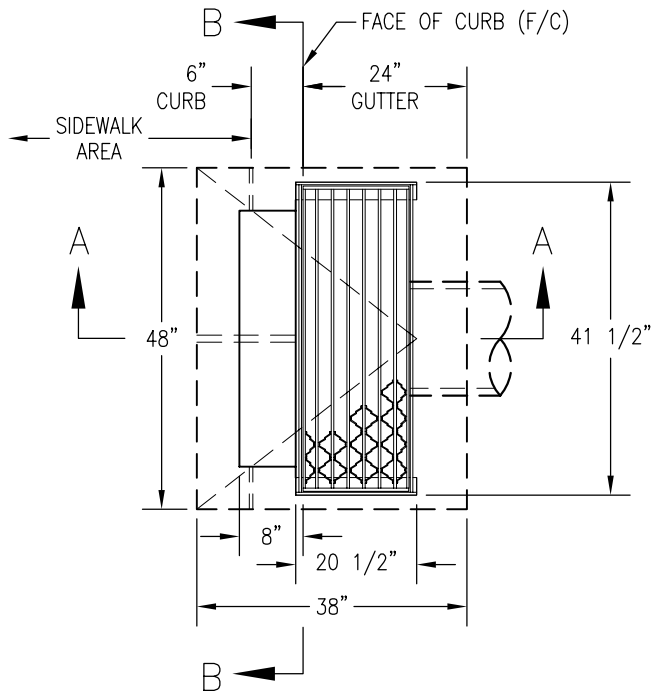
PAGE: 20

STANDARD DETAILS

Department of Public Works
City of Santa Clara, CA

STORM DRAIN SECTION

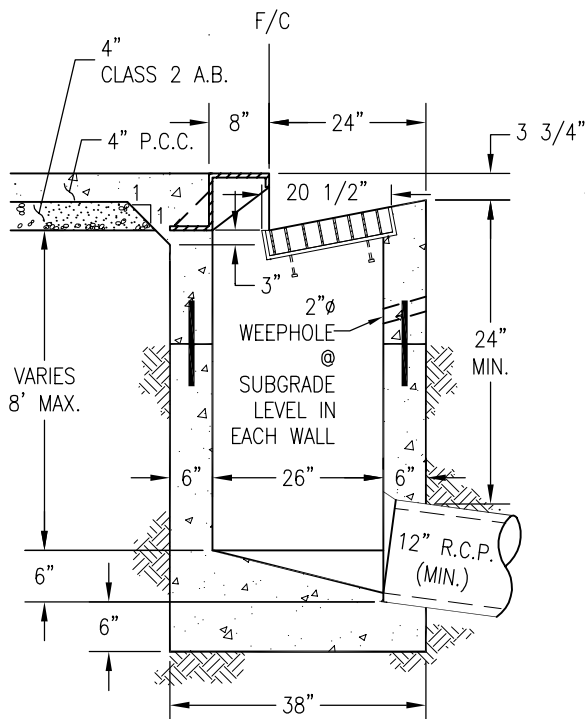
DETAILS SD-1 TO SD-7



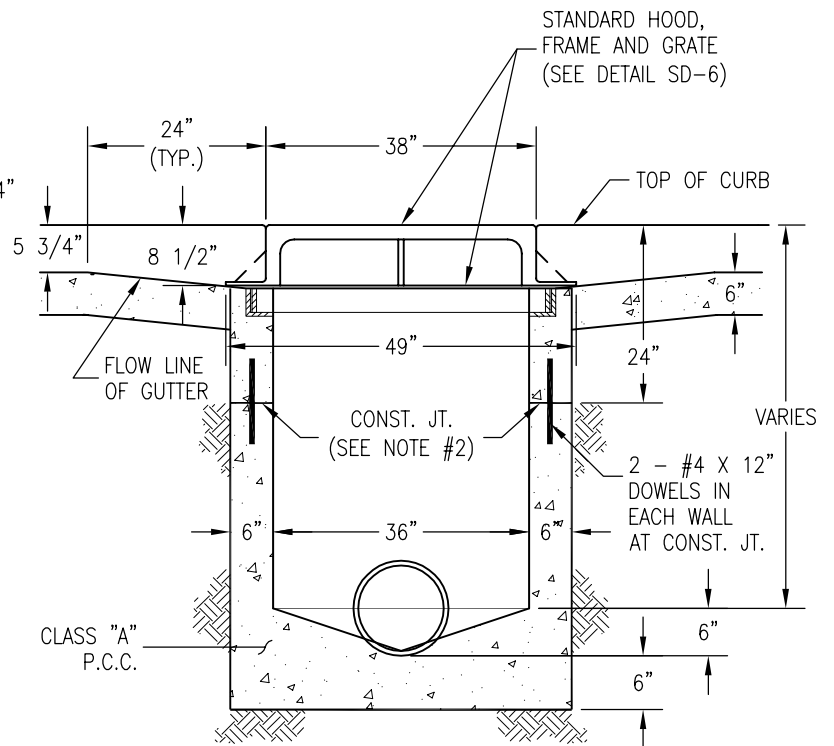
PLAN VIEW
NO SCALE

NOTES:

1. PRECAST CONCRETE CATCH BASIN (C.B.) MAY BE USED SUBJECT TO WRITTEN APPROVAL OF THE CITY ENGINEER.
2. C.B. WALLS MAY BE POURED TO AN ELEVATION NOT LESS THAN 2'-0" BELOW TOP OF CURB. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FRAME IN AND POUR THE UPPER 2'-0" OF THE C.B. MONOLITHICALLY WITH CURB AND GUTTER.
3. WHEN CURB AND SIDEWALK ARE NOT POURED MONOLITHICALLY, CONCRETE CURB POUR SHALL ALSO ENCASE SIDES AND BACK OF HOOD A MINIMUM OF 12" WIDE AND 12" DEEP. SAID ENCASEMENT SHALL BE POURED IN FORM TO PROVIDE STRAIGHT EDGES.



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE



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CURB INLET CATCH BASIN

CITY OF SANTA CLARA

SD-2

PAGE: 22

PLAN VIEW
NO SCALE

FACE ANGLE ANCHOR DETAIL
NO SCALE

NOTES:

1. FOR APPLICABLE GENERAL NOTES SEE DETAIL SD-2.
2. TYPE "A" CATCH BASIN MAY BE USED ONLY IF WRITTEN APPROVAL IS GRANTED BY THE CITY ENGINEER.
3. WHERE CATCH BASIN IS LOCATED IN CURB RETURN WITH RADIUS $< 20'$, NOTCH AND BEND ANGLE IRON TO MATCH FACE OF CURB.
4. * = DIMENSIONS WITHIN CURB RETURNS.

SECTION A-A
NO SCALE

SECTION B-B
NO SCALE



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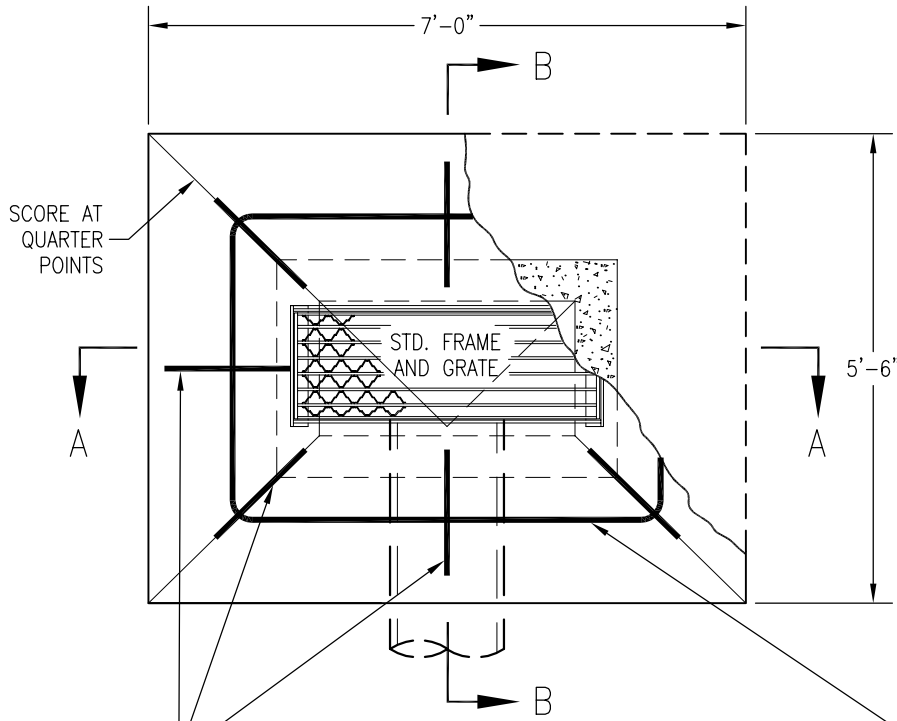
TYPE "A"

CURB INLET CATCH BASIN

CITY OF SANTA CLARA

SD-3

PAGE: 23



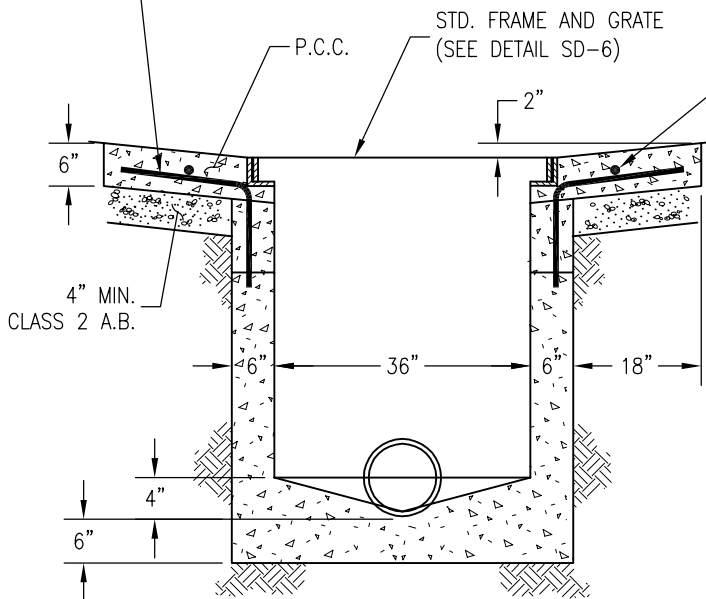
NOTES:

1. WHERE VALLEY GUTTER MEETS INLET APRON, SHAPE APRON TO CONFORM TO VALLEY GUTTER.
2. PRECAST INLETS MAY BE USED SUBJECT TO WRITTEN APPROVAL OF THE CITY ENGINEER.

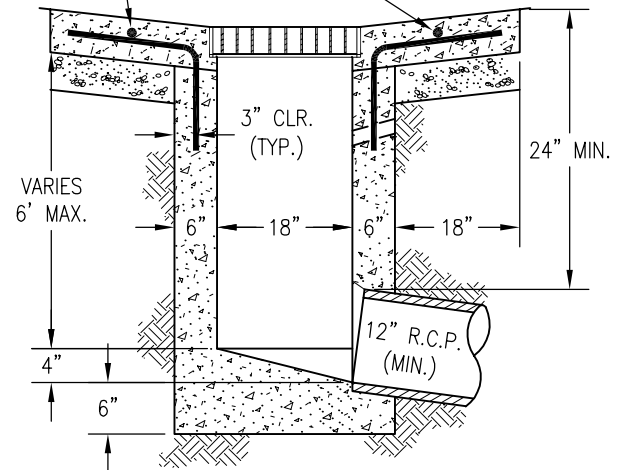
PLAN VIEW
NO SCALE

PLACE 8 - #4 X 18"
REBARS SYMMETRICALLY

1 - #4 X 43" 60"
REBAR WHERE SHOWN



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE



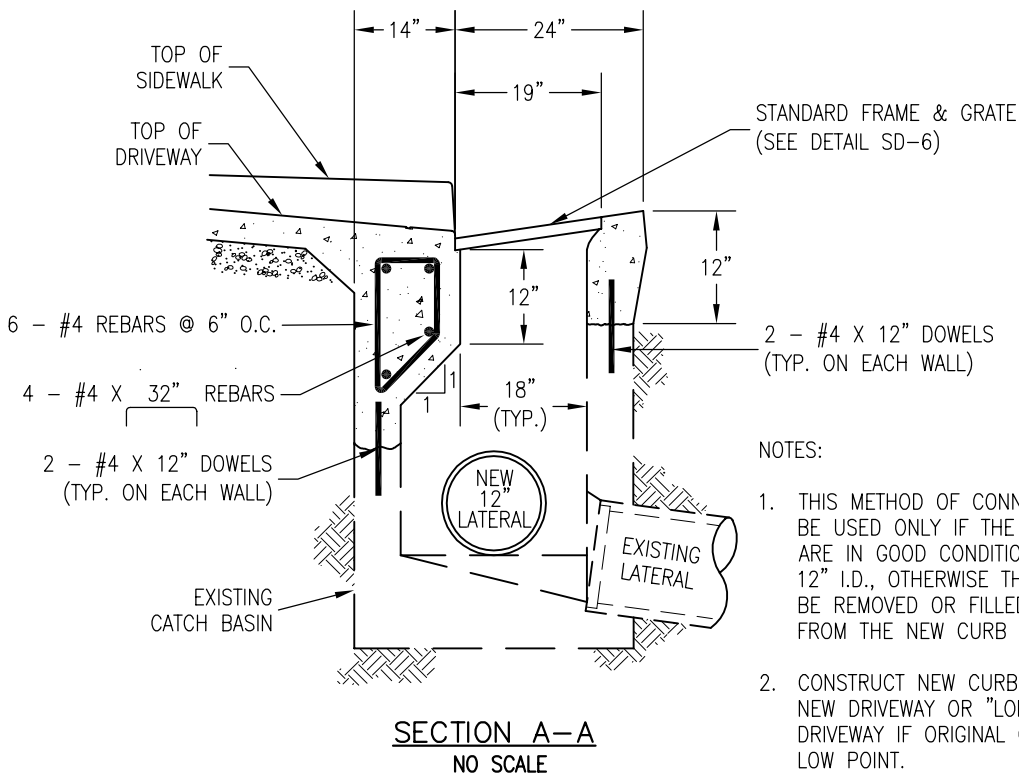
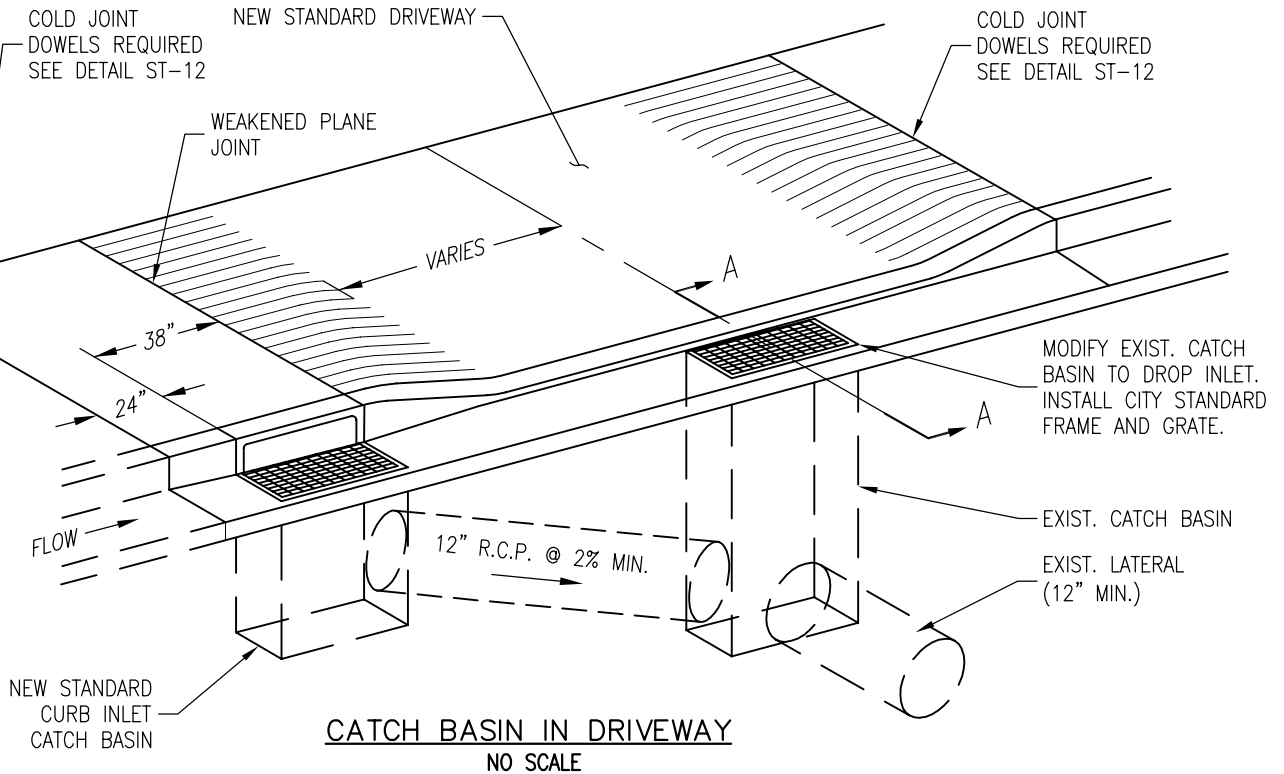
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DATE: OCTOBER 2002

DROP INLET CATCH BASIN

CITY OF SANTA CLARA

SD-4

PAGE: 24



NOTES:

1. THIS METHOD OF CONNECTING A NEW CURB INLET IS TO BE USED ONLY IF THE EXISTING CATCH BASIN AND LATERAL ARE IN GOOD CONDITION AND THE LATERAL IS AT LEAST 12" I.D., OTHERWISE THE EXISTING CATCH BASIN SHALL BE REMOVED OR FILLED IN AND A NEW LATERAL INSTALLED FROM THE NEW CURB INLET TO THE NEAREST MANHOLE.
2. CONSTRUCT NEW CURB INLET ON THE UPSTREAM SIDE OF NEW DRIVEWAY OR "LONGER UPSTREAM RUN" SIDE OF DRIVEWAY IF ORIGINAL CATCH BASIN IS CONSTRUCTED AT A LOW POINT.



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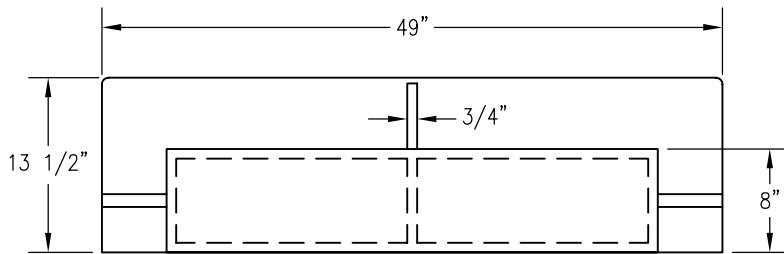
DATE: DECEMBER 2002

**ADAPTION FOR EXISTING
CATCH BASIN IN NEW DRIVEWAY**

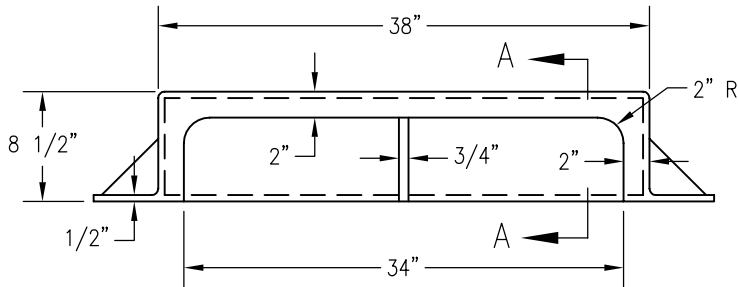
CITY OF SANTA CLARA

SD-5

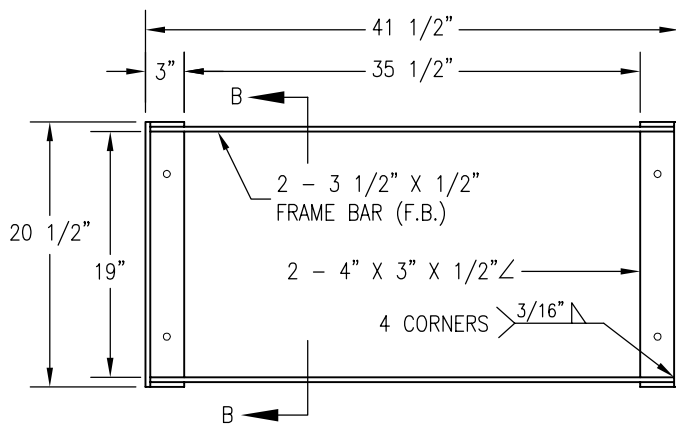
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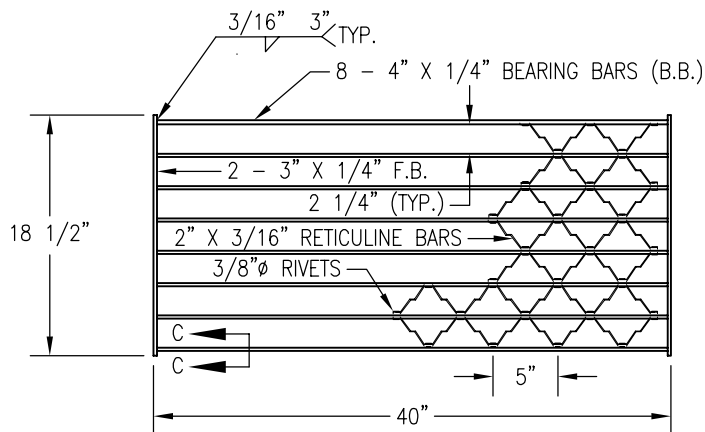
HOOD — PLAN VIEW
NO SCALE



HOOD — FRONT VIEW
NO SCALE



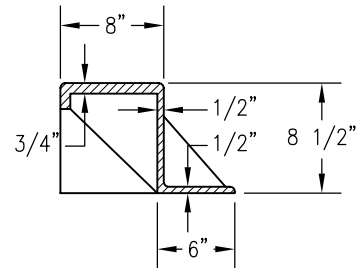
FRAME — PLAN VIEW
NO SCALE



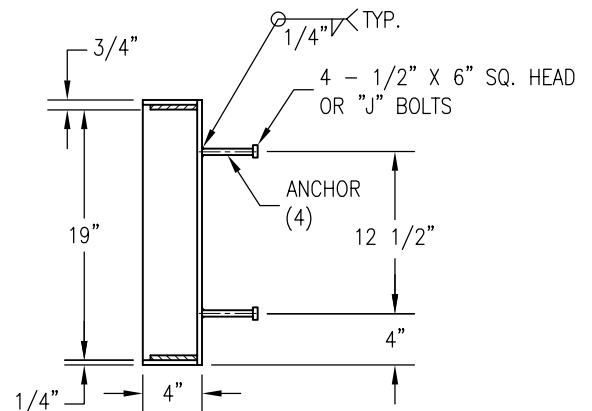
GRATE — PLAN VIEW
NO SCALE

NOTES:

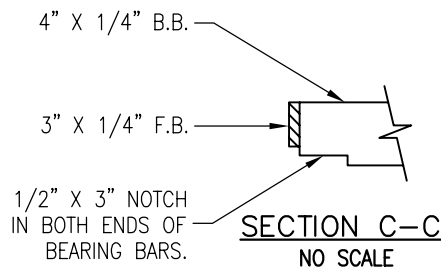
1. HOOD SHALL BE CAST IRON AND BE EQUAL TO SOUTH BAY FOUNDRY SBF 1902.
WEIGHT OF HOOD = 175 LBS (APPROX.)
2. CASTING SHALL BE GIVEN A HOT ASPHALT DIP.



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE



SECTION C-C
NO SCALE

NOTES:

3. FRAME & GRATE SHALL BE EQUAL TO METALFAB M-1001.
4. MATERIAL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
5. WEIGHT OF FRAME = 80 LBS. (TYP.)
WEIGHT OF GRATE = 130 LBS. (TYP.)



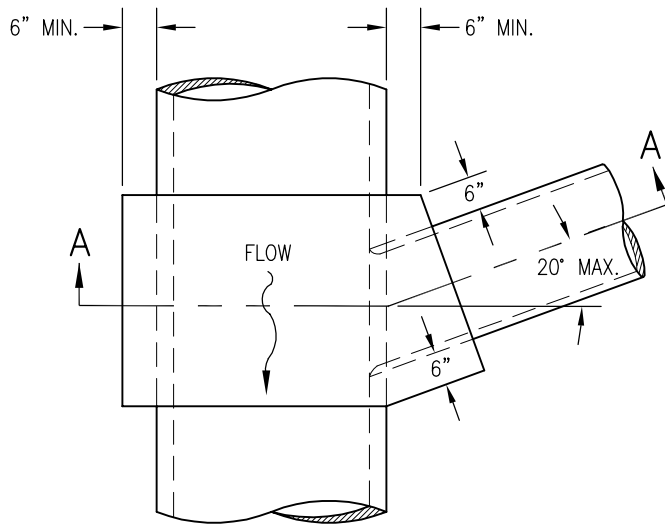
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DATE: DECEMBER 2002

**CATCH BASIN HOOD,
FRAME AND GRATE**

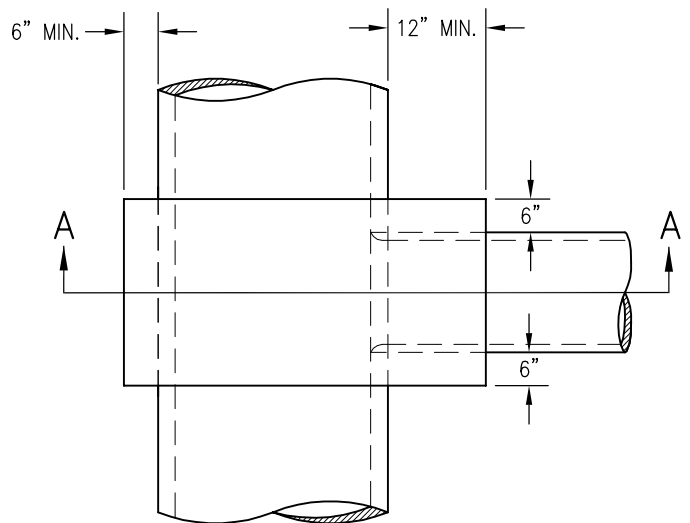
CITY OF SANTA CLARA

SD-6

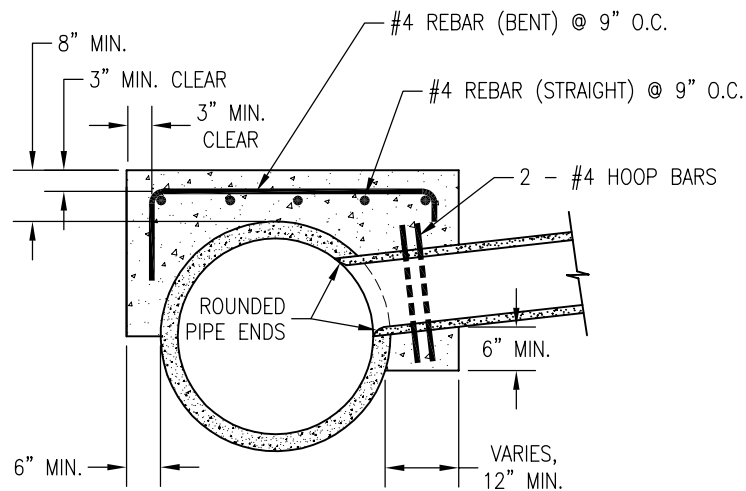
PAGE: 26



SKewed CONNECTION
PLAN VIEW
NO SCALE



PERPENDICULAR CONNECTION
PLAN VIEW
NO SCALE



SECTION A-A
NO SCALE

NOTES:

1. CONCRETE LUG CONNECTION MAY BE USED ONLY AT LOCATIONS APPROVED BY THE CITY ENGINEER.
2. THE LARGER PIPE SHALL NOT BE LESS THAN 48" I.D.
3. THE SMALLER PIPE SHALL NOT BE LESS THAN 12" I.D. OR MORE THAN 15" I.D.
4. INVERT OF SMALLER PIPE SHALL NOT BE LOWER THAN MID-HEIGHT OF LARGER PIPE.
5. THE END OF THE CONNECTING PIPE SHALL NOT PROJECT INTO THE WATERWAY OF THE LARGER PIPE.
6. CONCRETE SHALL BE CLASS "A".



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DATE: AUGUST 2006

CONCRETE LUG

CITY OF SANTA CLARA

SD-7

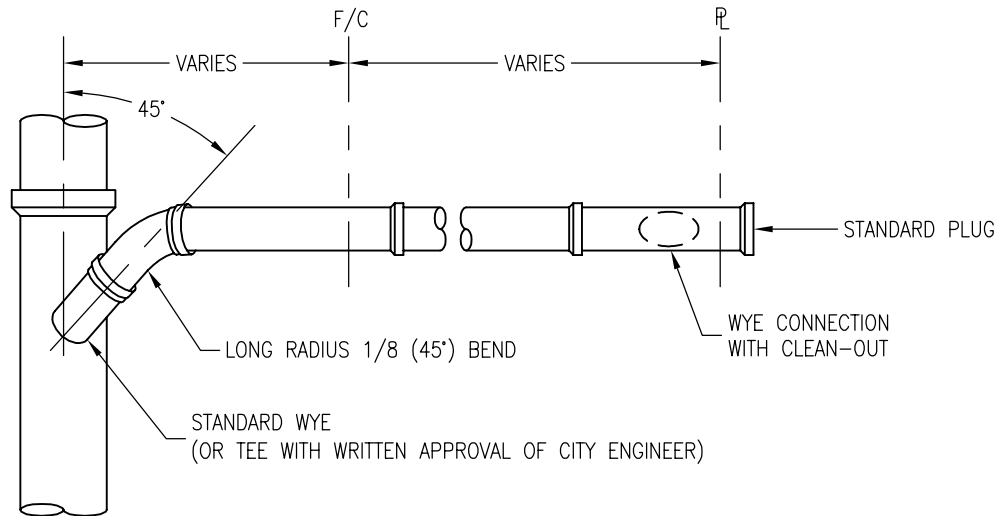
PAGE: 27

STANDARD DETAILS

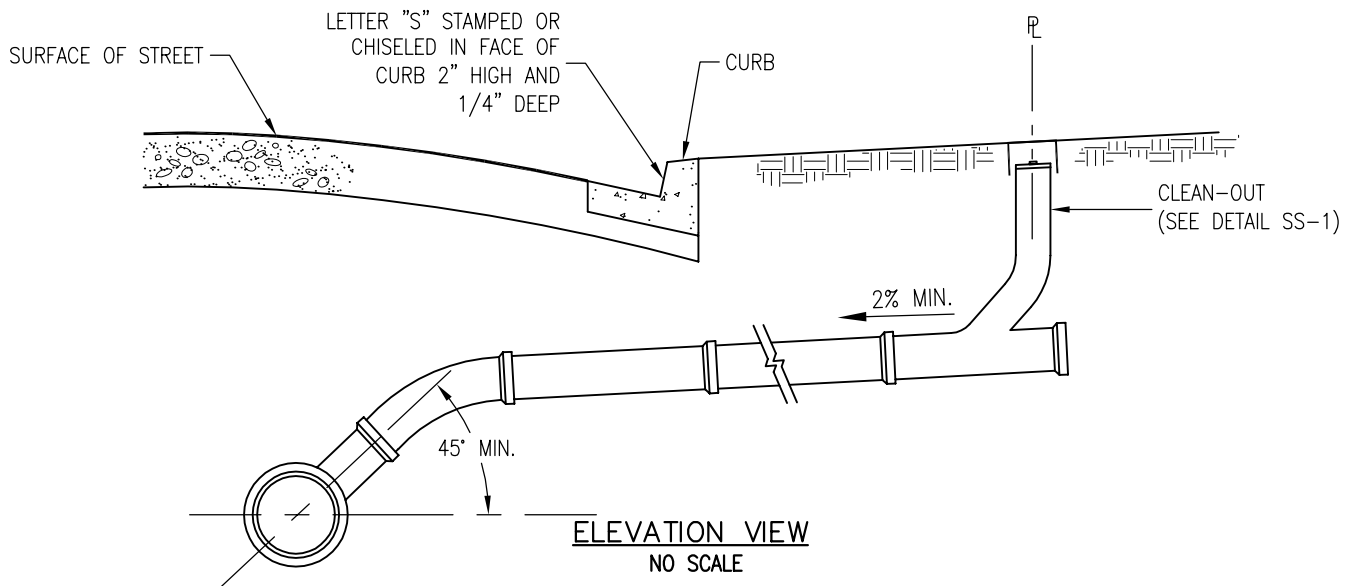
Department of Public Works
City of Santa Clara, CA

SANITARY SEWER SECTION

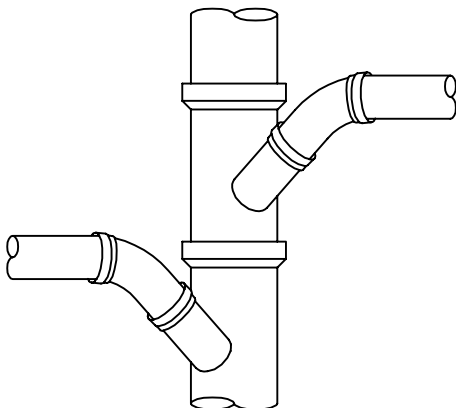
DETAILS SS-1 TO SS-5



PLAN VIEW
NO SCALE



ELEVATION VIEW
NO SCALE



OPPOSITE LATERALS – PLAN VIEW
NO SCALE

NOTES:

1. IN NO CASE SHALL A LATERAL CONNECT TO THE SANITARY SEWER MAIN DIRECTLY ON TOP OF THE PIPE.
2. ONLY ONE CONNECTION MAY BE MADE IN EACH SECTION OF SANITARY SEWER MAIN.
3. SANITARY SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2%.
4. ALL LATERAL PIPE JOINTS SHALL BE COMPRESSION TYPE.
5. LATERAL SHALL EXTEND TO PROPERTY LINE UNLESS OTHERWISE NOTED, AND A CLEANOUT SHALL BE INSTALLED AT THE PROPERTY LINE. (SEE DETAIL SS-1)



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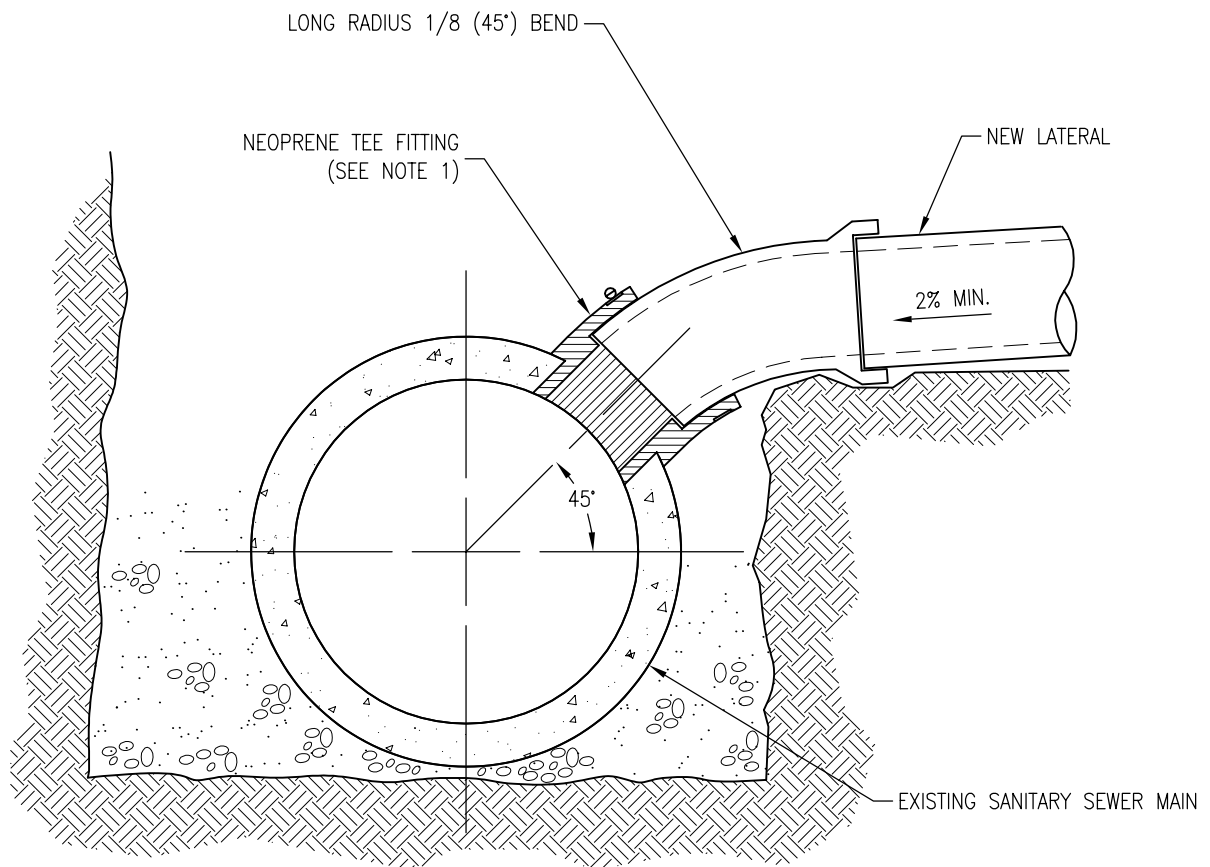
DATE: AUGUST 2006

**SANITARY SEWER
LATERAL CONNECTION**

CITY OF SANTA CLARA

SS-2

PAGE: 29



NOTES:

1. SYNTHETIC RUBBER CONNECTION FITTING WITH WEDGED INSERT AND MECHANICALLY TIGHTENED STAINLESS STEEL BAND. HOLE TO BE DRILLED WITH A POWER DRIVEN CUTTER PRODUCING A SMOOTH SURFACE ("TAP-TITE" OR APPROVED EQUAL).
2. THIS LATERAL TAP CONNECTION DETAIL SHALL BE APPLICABLE ONLY TO LATERALS WITH INSIDE PIPE DIAMETER OF 4" OR 6". LATERALS GREATER THAN 6" SHALL CONNECT TO MAINS IN MANHOLES.
3. MORE THAN ONE LATERAL TAP CONNECTION IN ANY SECTION OF SANITARY SEWER MAIN IS SUBJECT TO THE WRITTEN APPROVAL OF THE CITY ENGINEER.
4. WHERE 6" LATERALS CONNECT TO 8" MAINS, OR 4" LATERALS CONNECT TO 6" MAINS, THE MAIN AND TEE FITTING SHALL BE ENCASED WITH CONCRETE TO A LEVEL OF THREE INCHES ABOVE THE TOP OF THE SANITARY SEWER MAIN.
5. IF THE SANITARY SEWER MAIN IS NOT IN SOUND CONDITION, THE ENTIRE SECTION OF THE MAIN SHALL BE REMOVED AND REPLACED, AND THE LATERAL SHALL BE CONNECTED PER CITY STANDARD "SANITARY SEWER LATERAL CONNECTION" (SEE DETAIL SS-2).



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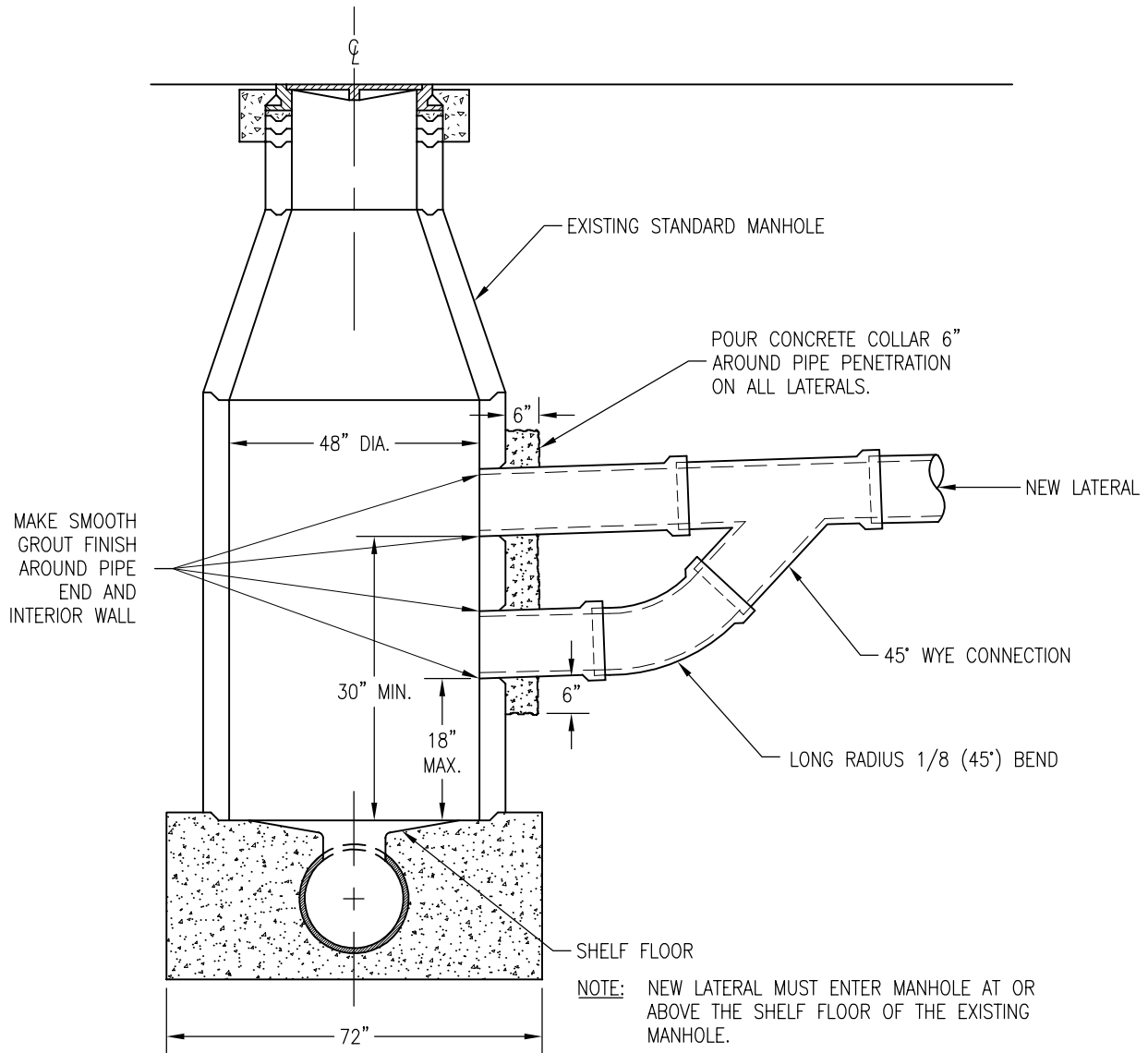
DATE: AUGUST 2006

**SANITARY SEWER LATERAL
CONNECTION TO EXISTING MAIN**

CITY OF SANTA CLARA

SS-3

PAGE: 30



ELEVATION VIEW
NO SCALE

NOTE: NEW LATERAL MUST ENTER MANHOLE AT OR ABOVE THE SHELF FLOOR OF THE EXISTING MANHOLE.



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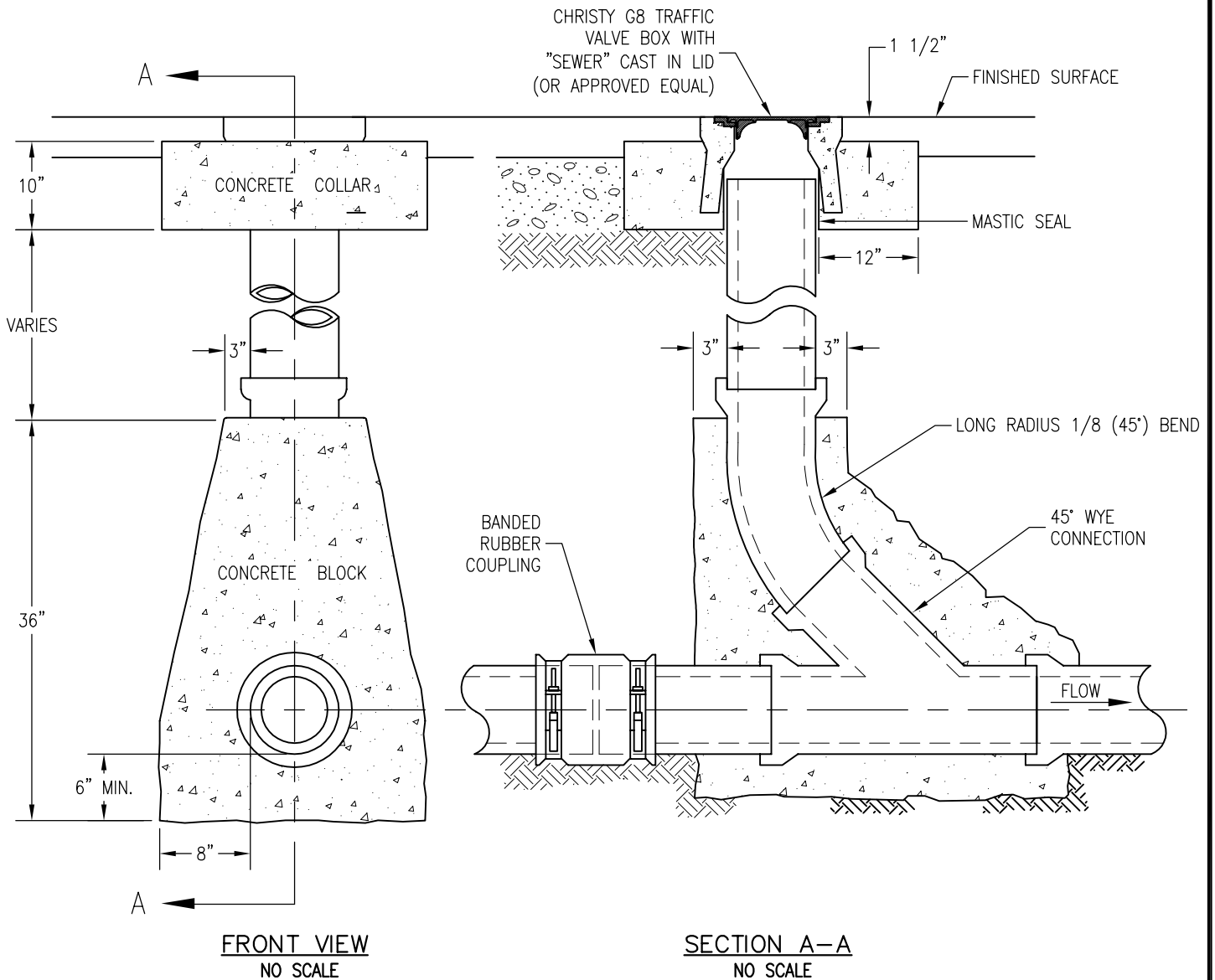
DATE: AUGUST 2006

LATERAL CONNECTION TO EXISTING MANHOLE GREATER THAN 18" ABOVE SHELF FLOOR

CITY OF SANTA CLARA

SS-4

PAGE: 31



NOTE: FLUSHING INLETS MAY BE USED ONLY WITH WRITTEN APPROVAL OF THE CITY ENGINEER.



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FLUSHING INLET

CITY OF SANTA CLARA

SS-5

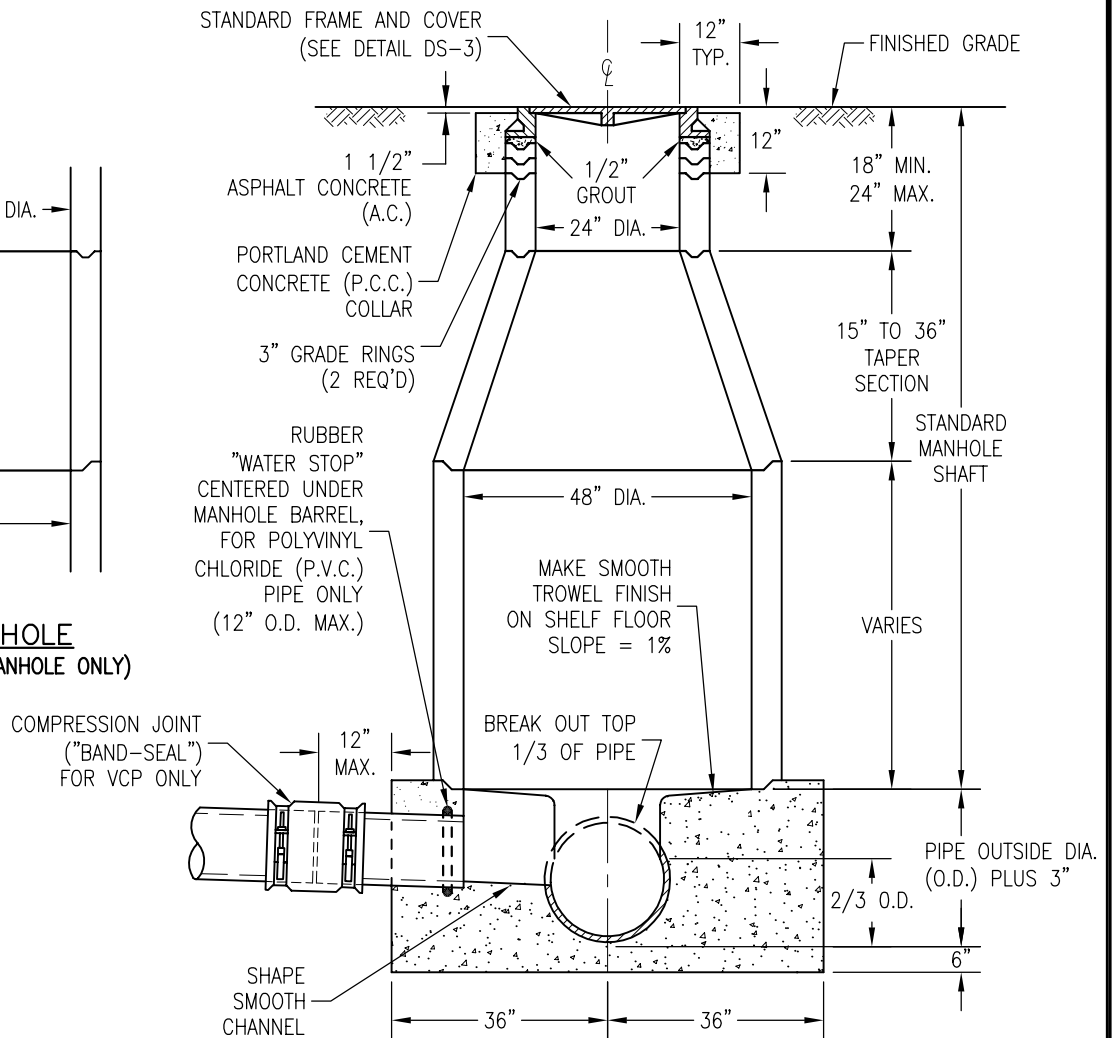
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STANDARD DETAILS

Department of Public Works
City of Santa Clara, CA

DRAINAGE STRUCTURE SECTION DETAILS DS-1 TO DS-5

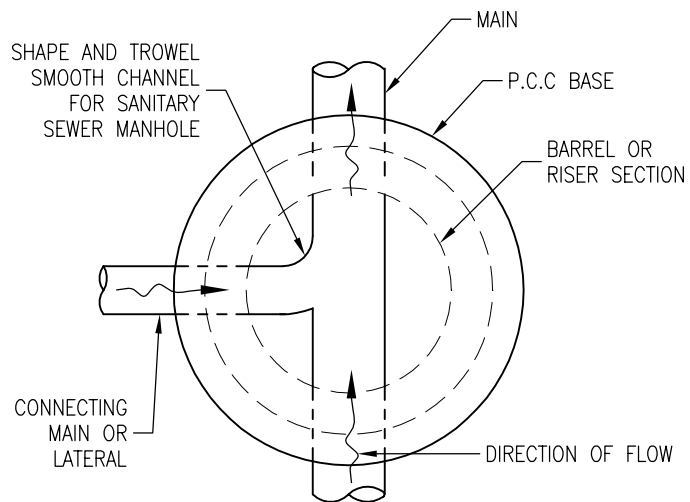
ECCENTRIC MANHOLE
(OPTION FOR STORM DRAIN MANHOLE ONLY)



CONCENTRIC MANHOLE – ELEVATION VIEW

NO SCALE

- NOTES:
1. MANHOLE BASE SHALL BE POURED ON UNDISTURBED GROUND. IF OVER EXCAVATION OCCURS, BACKFILL WITH CONCRETE. AN APPROVED 'IMPRESSION RING' MUST BE USED TO FORM KEYWAY FOR MANHOLE BARREL SECTION.
 2. INTERSECTING LATERALS' AND MAINS' CROWNS SHALL MATCH.
 3. ALL JOINTS SHALL BE SEALED WITH "RAMNEK" OR APPROVED EQUAL.
 4. CENTER OF ECCENTRIC MANHOLE COVER SHALL BE LOCATED OVER THE CENTER OF THE MAIN ON THE UPSTREAM SIDE.
 5. TYPE V PORTLAND CEMENT FOR SANITARY SEWER STRUCTURES AND TYPE II PORTLAND CEMENT FOR STORM DRAIN STRUCTURES.
 6. BELL END OF PIPE SHALL BE 12" MAX. FROM WALL OF MANHOLE
 7. THIS DESIGN IS USABLE FOR PIPES UP TO 36" DIA. ONLY.



BOTTOM VIEW

NO SCALE



DRAWN BY:	M. LEE
CHECKED BY:	S. THACH
APPROVED BY:	T. SUPAN

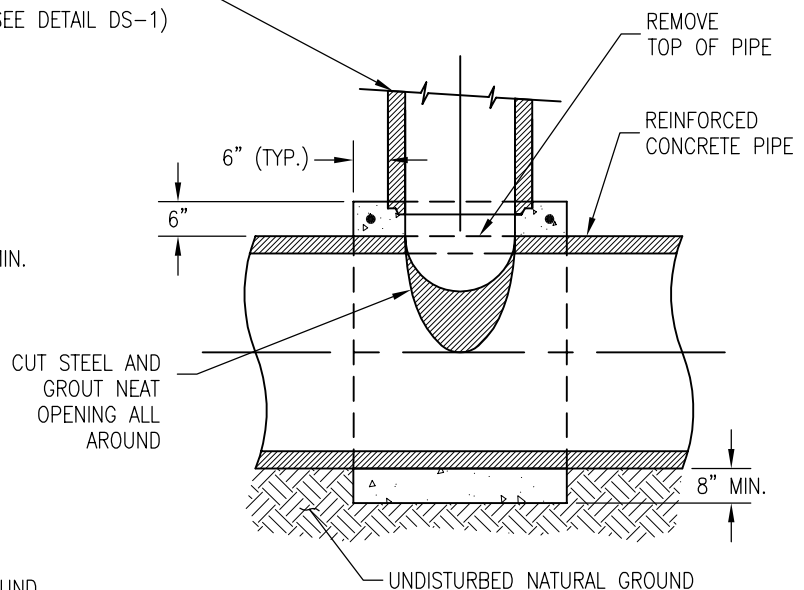
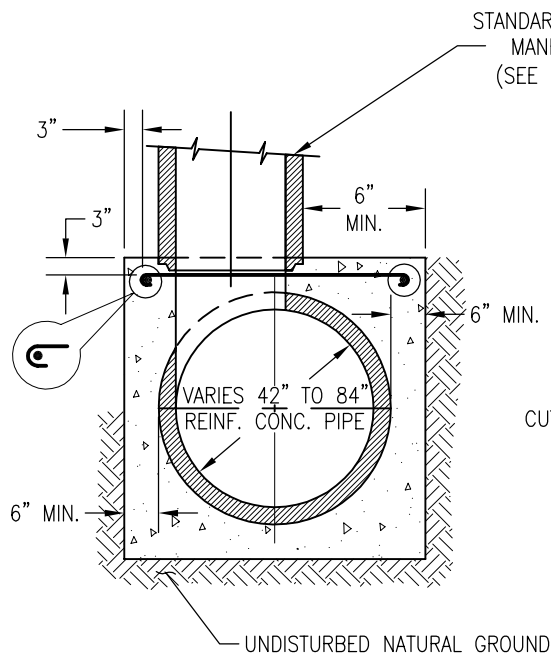
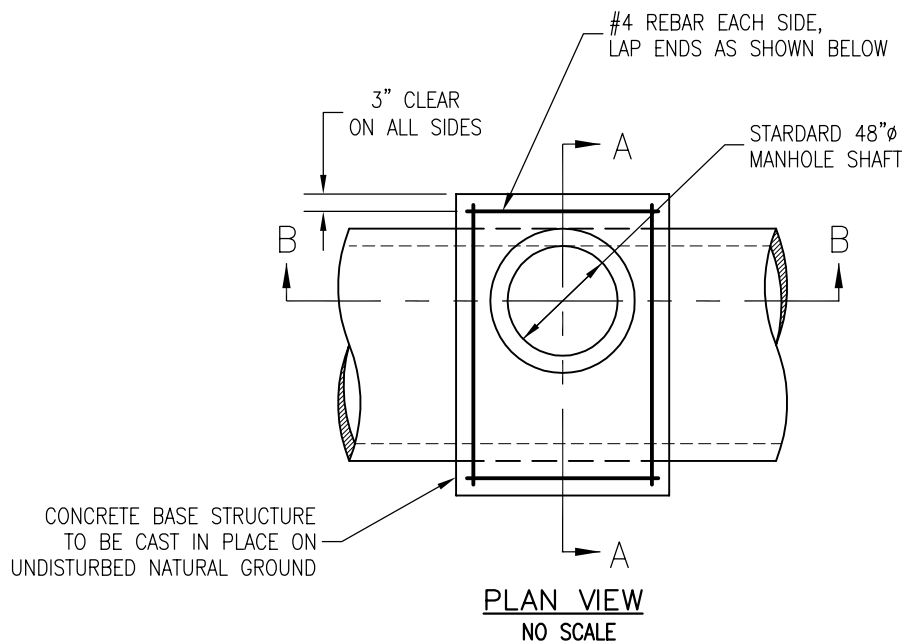
DATE: DECEMBER 2006

MANHOLE

CITY OF SANTA CLARA

DS-1

PAGE: 33



NOTES:

1. MANHOLE SHAFT SHALL BE CENTERED AT MID-LENGTH OF PIPE SECTION.
2. DETAIL NOT APPLICABLE WHERE PIPE DEFLECTION OCCURS AT MANHOLE. SPECIAL MANHOLE BASE DETAIL REQUIRED IF LOCATED AT PIPE JOINT.
3. ALL JOINTS SHALL BE SEALED WITH "RAMNEK" OR APPROVED EQUAL.



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CHECKED BY: B. TRAN

APPROVED BY: G. GOMEZ

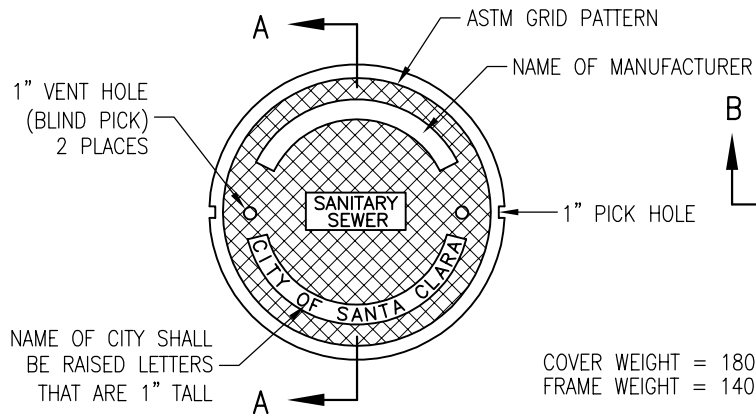
DATE: DECEMBER 2002

TYPE "A" MANHOLE

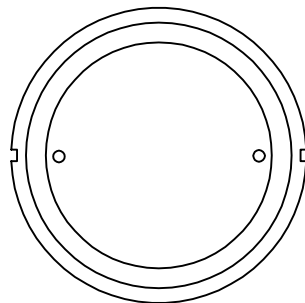
CITY OF SANTA CLARA

DS-2

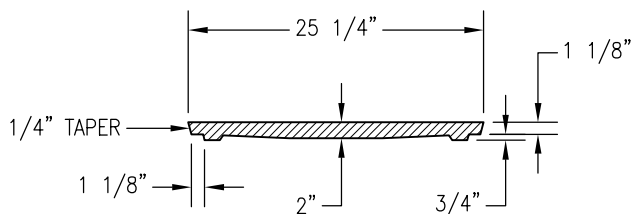
PAGE: 34



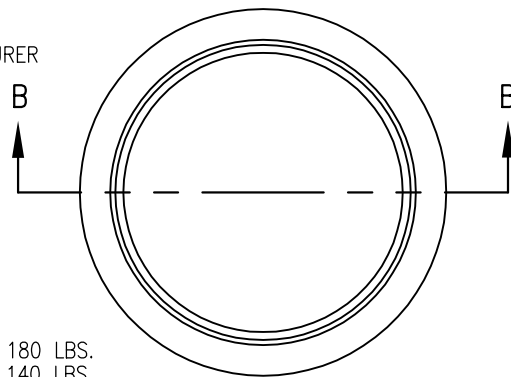
MANHOLE COVER — PLAN VIEW
NO SCALE



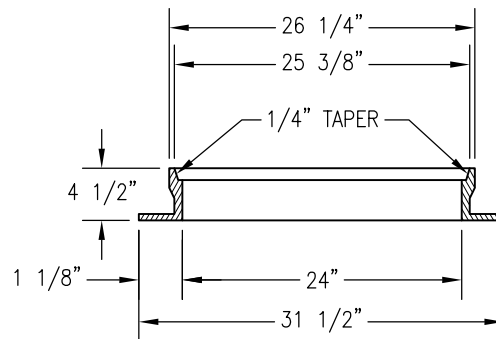
MANHOLE COVER — BOTTOM VIEW
NO SCALE



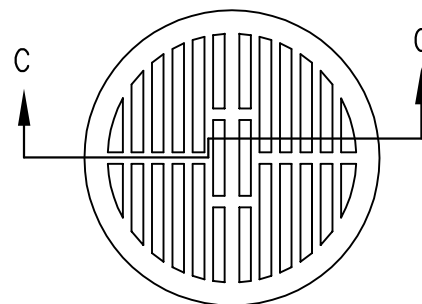
SECTION A-A
NO SCALE



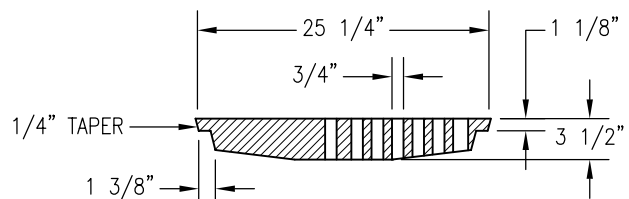
MANHOLE FRAME — PLAN VIEW
NO SCALE



SECTION B-B
NO SCALE



MANHOLE GRATE — PLAN VIEW
NO SCALE



SECTION C-C
NO SCALE

NOTES:

1. ALL MATERIAL TO BE CAST IRON DIPPED IN ASPHALT PAINT.
2. FRAME, GRATE AND COVER SHALL BE SUITABLE FOR H-20 LOADING.
3. COVER SHALL HAVE EITHER "SANITARY SEWER" FOR SANITARY SEWERS OR "STORM DRAIN" FOR STORM DRAINS IN RAISED LETTERS THAT ARE 1 1/2" TALL.



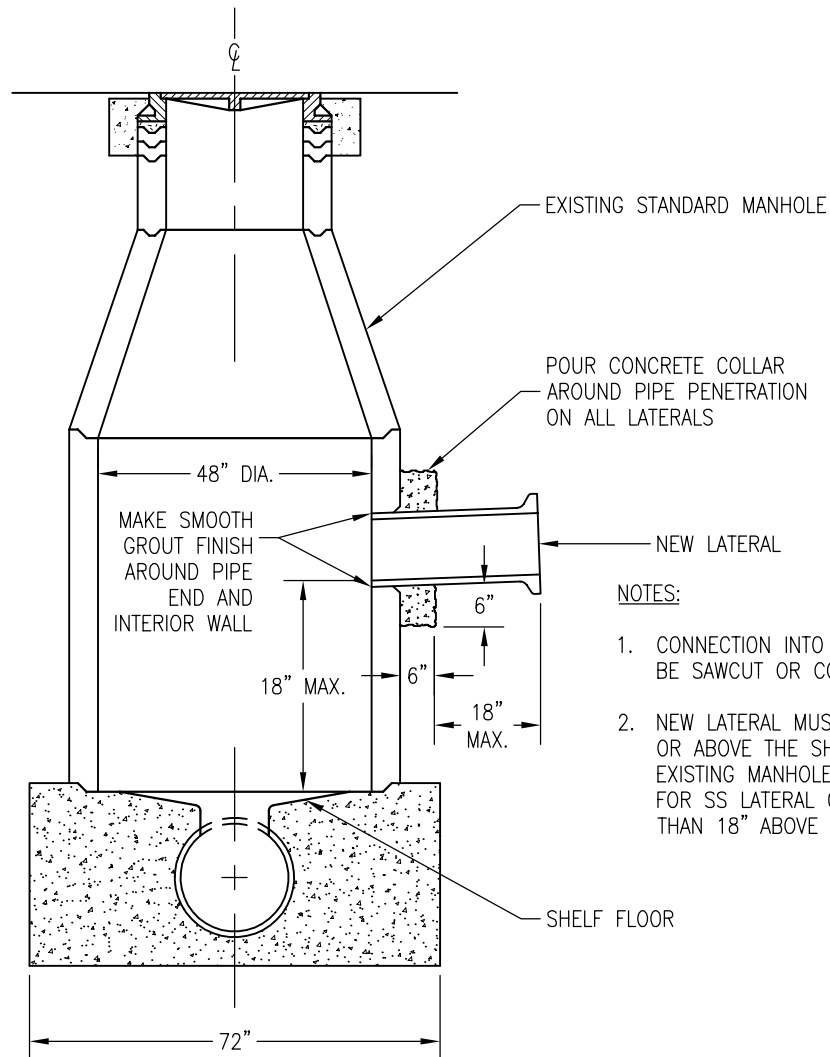
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APPROVED BY: **G. GOMEZ**
DATE: **DECEMBER 2002**

**MANHOLE FRAME,
COVER AND GRATE**

CITY OF SANTA CLARA

DS-3

PAGE: 35



NOTES:

1. CONNECTION INTO MANHOLE BARREL SHALL BE SAWCUT OR CORE DRILLED.
2. NEW LATERAL MUST ENTER MANHOLE AT OR ABOVE THE SHELF FLOOR OF THE EXISTING MANHOLE. SEE DETAIL SS-4 FOR SS LATERAL CONNECTION GREATER THAN 18" ABOVE MANHOLE SHELF FLOOR.

ELEVATION VIEW
NO SCALE



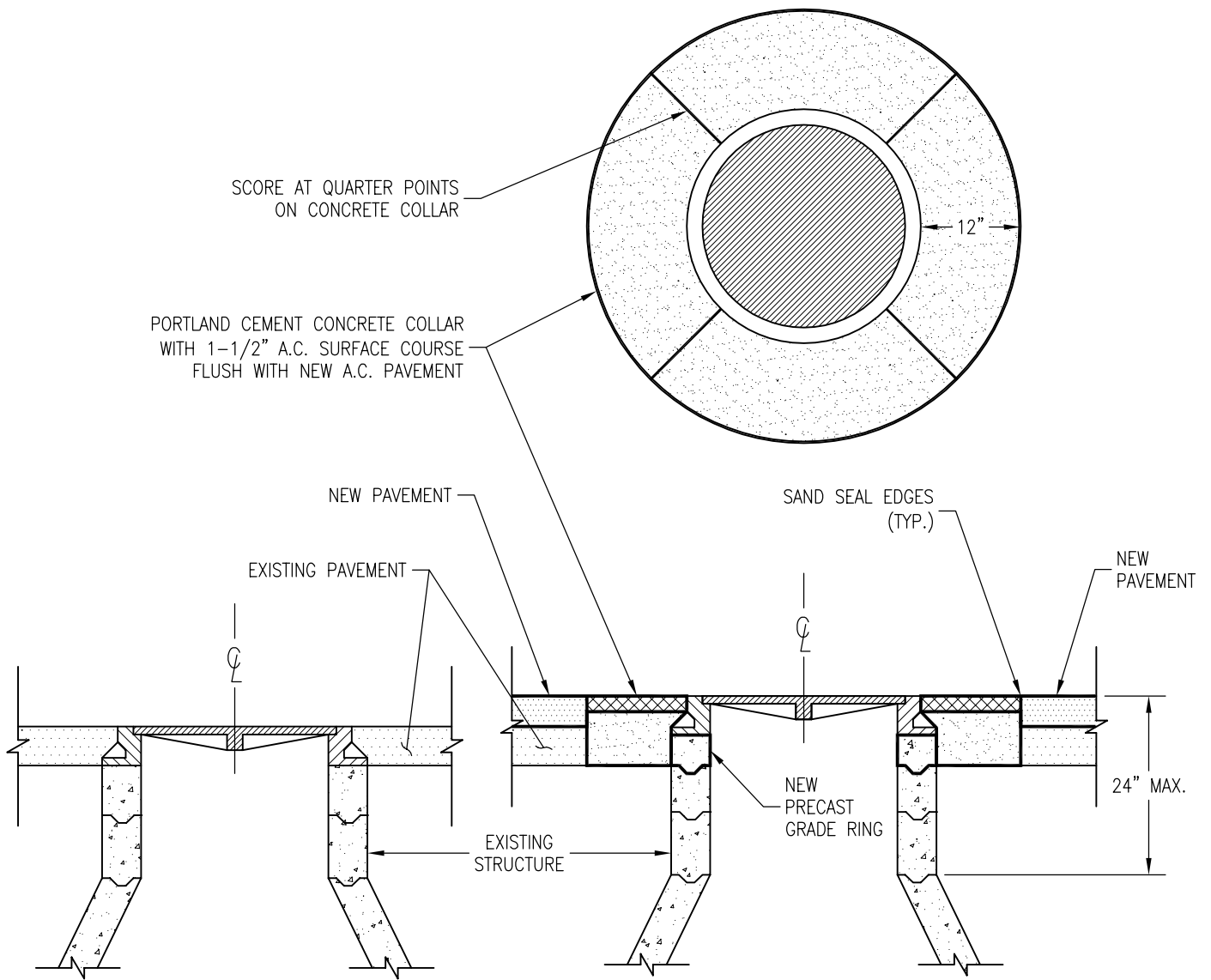
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**LATERAL CONNECTION
TO EXISTING MANHOLE**

CITY OF SANTA CLARA

DS-4

PAGE: 36



EXISTING MANHOLE
NO SCALE

RAISED MANHOLE
NO SCALE

NOTE:

EXISTING FRAME AND COVER TO BE USED
UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



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MANHOLE RAISING

CITY OF SANTA CLARA

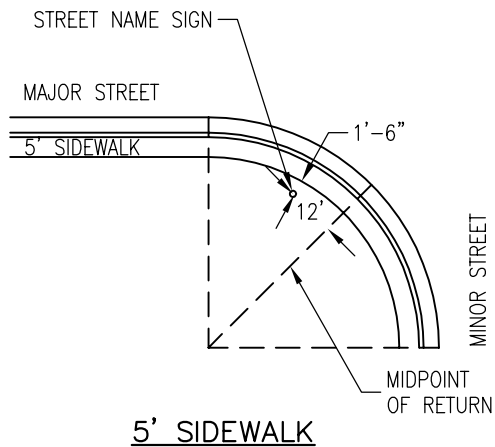
DS-5

PAGE: 37

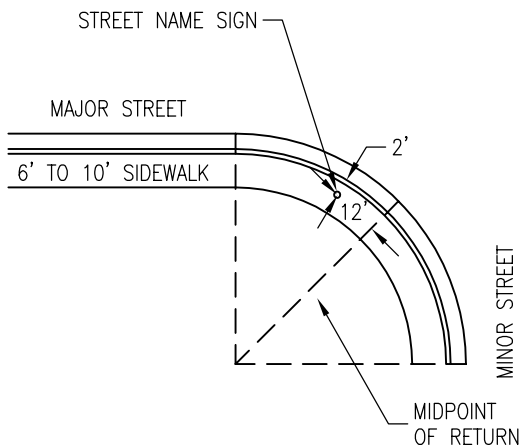
STANDARD DETAILS

Department of Public Works
City of Santa Clara, CA

TRAFFIC SECTION DETAILS TR-1 TO TR-8



5' SIDEWALK

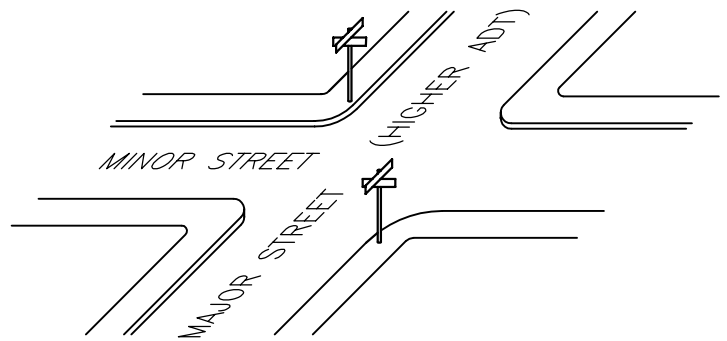


6' TO 10' SIDEWALK

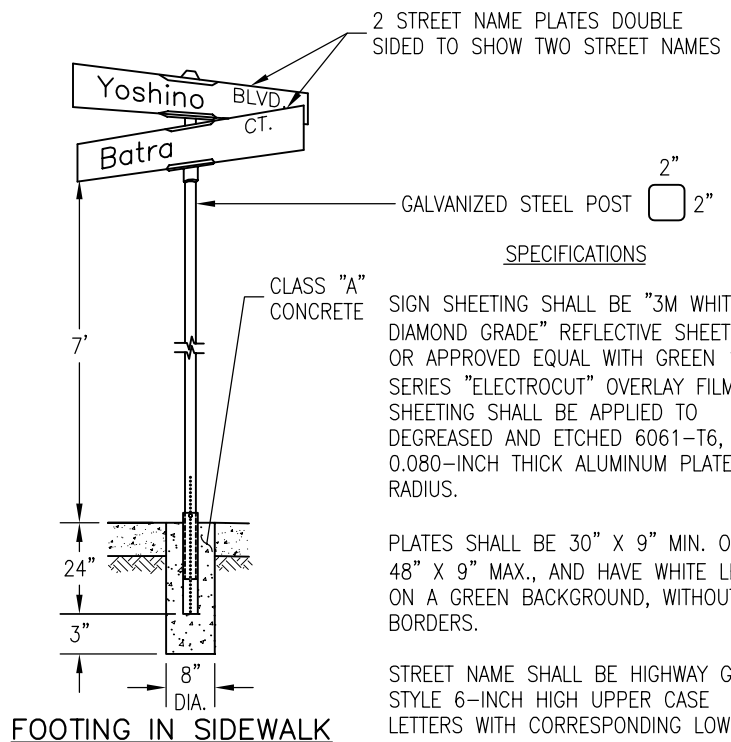
STREET NAME SIGN LOCATION DETAILS
NO SCALE

NOTES:

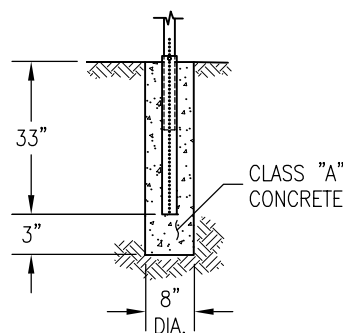
1. TWO STREET NAME SIGNS LOCATED DIAGONALLY ACROSS FROM EACH OTHER ARE REQUIRED WHERE ONE OF THE TWO INTERSECTING STREETS' WIDTH (CURB TO CURB) IS 64' OR MORE.
2. ONLY ONE STREET NAME SIGN IS REQUIRED IF BOTH INTERSECTING STREETS' WIDTHS (CURB TO CURB) ARE LESS THAN 64'.
3. PRIVATE STREET NAME SIGN SHALL BE WHITE LETTERING ON BROWN BACKGROUND AND SHALL BE PLACED OUTSIDE PUBLIC ROW.



TYPICAL STREET NAME SIGN LOCATIONS
NO SCALE



FOOTING IN SIDEWALK



FOOTING IN DIRT

STREET NAME SIGN
NO SCALE



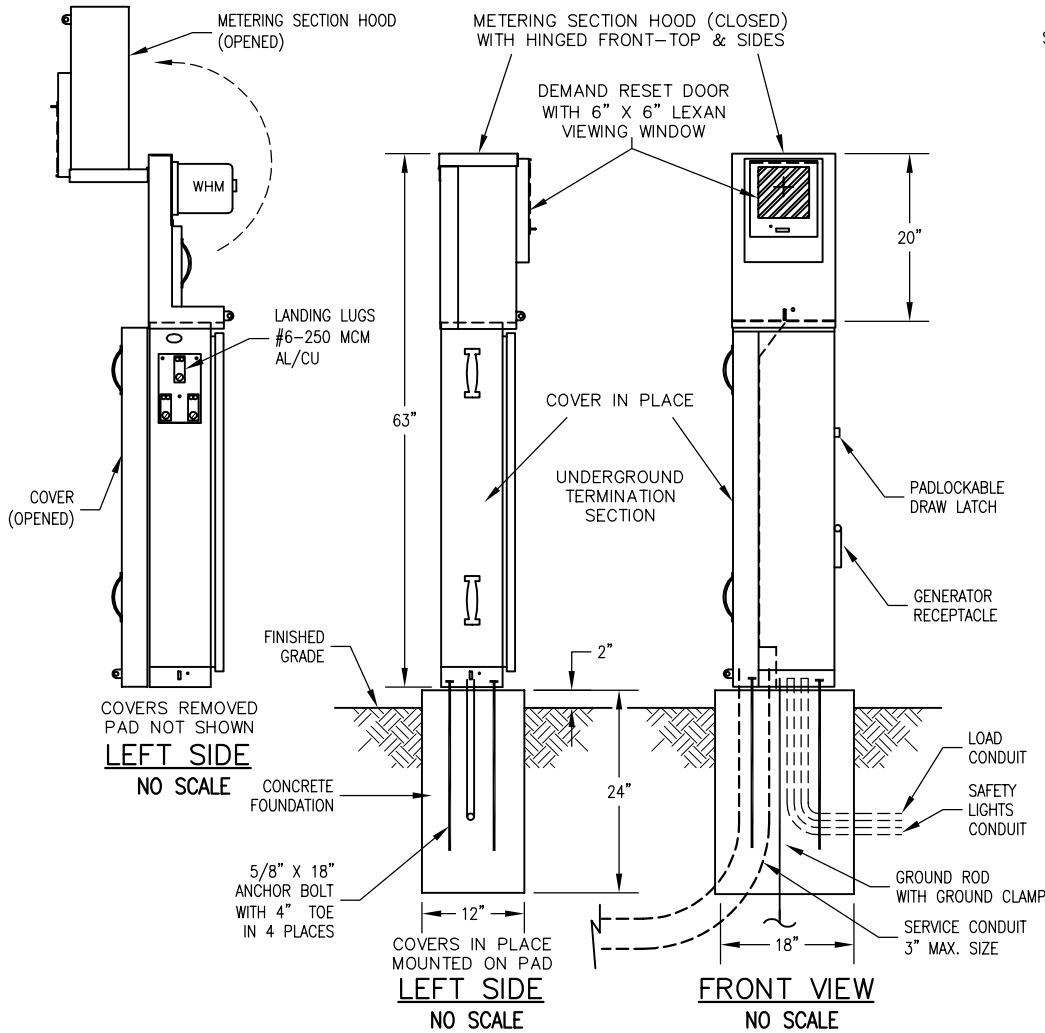
DRAWN BY: M. LEE
CHECKED BY: D. PITTON
APPROVED BY: T. SUPAN
DATE: DECEMBER 2006

**STREET NAME SIGN
AND LOCATION**

CITY OF SANTA CLARA

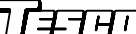
TR-1

PAGE: 38



SEE ENCLOSURE
CONSTRUCTION
NOTE 10

Underwriters Laboratories Inc.
File No. E62062



TESCO CONTROLS INC.
916 385-9800
SACRAMENTO, CA.

1-_____

26-100 _____

INDUSTRIAL CONTROL PANEL

VOLTAGE	PHASE	WIRES	MAINS AMPERES	HZ
120/240	1	3	100	60

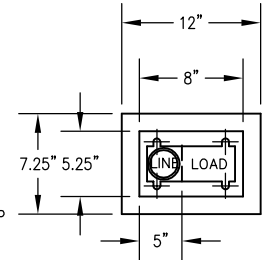
SUITABLE FOR USE ON A CIRCUIT CAPABLE OF
DELIVERING NOT MORE THAN:

AMPERES	AT	VOLTAGE
10,000	RMS SYM.	240 V

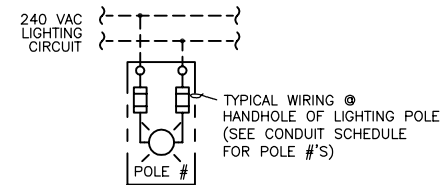
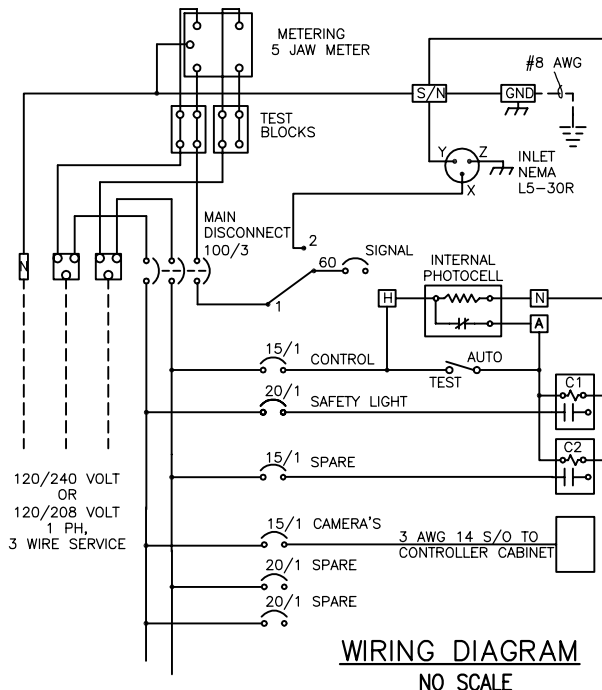
METER SOCKET RATING _____ 100 _____ A. CONT.

ENCLOSURE: TYPE 3R

**SUITABLE ONLY FOR USE AS
SERVICE EQUIPMENT**



BASE PLAN
NO SCALE



ENCLOSURE CONSTRUCTION NOTES:

1. FABRICATED FROM 1/8" ALUMINUM SHEET STOCK ELECTRICALLY WELDED AND REINFORCED WHERE REQUIRED.
2. CONSTRUCTION WILL BE NEMA 3R AND 12, RAINLIGHT AND DUST TIGHT.
3. ALL NUTS, BOLTS, SCREWS AND HINGES SHALL BE STAINLESS STEEL.
4. NUTS, BOLTS & SCREWS SHALL NOT BE VISIBLE FROM OUTSIDE OF ENCLOSURE.
5. PHENOLIC NAMEPLATES SHALL BE PROVIDED AS REQUIRED.
6. CONTROL WIRING SHALL BE MARKED AT BOTH ENDS BY PERMANENT WIRE MARKERS.
7. A PLASTIC COVERED WIRING DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
8. ENCLOSURE WILL BE FACTORY WIRED AND CONFORM TO REQUIRED NEMA STANDARD.
9. FINISH: ANODIZED ALUMINUM
10. PANEL SHALL BE TESCO TYPE III AF OR APPROVED EQUAL.



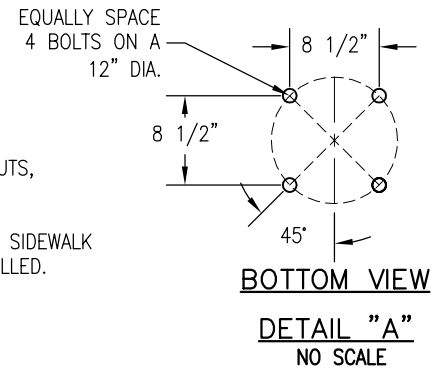
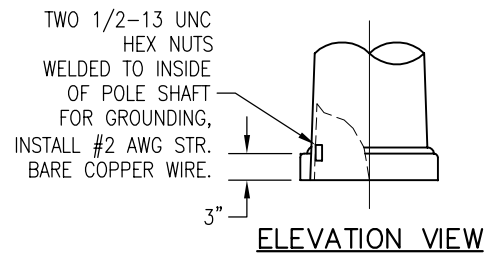
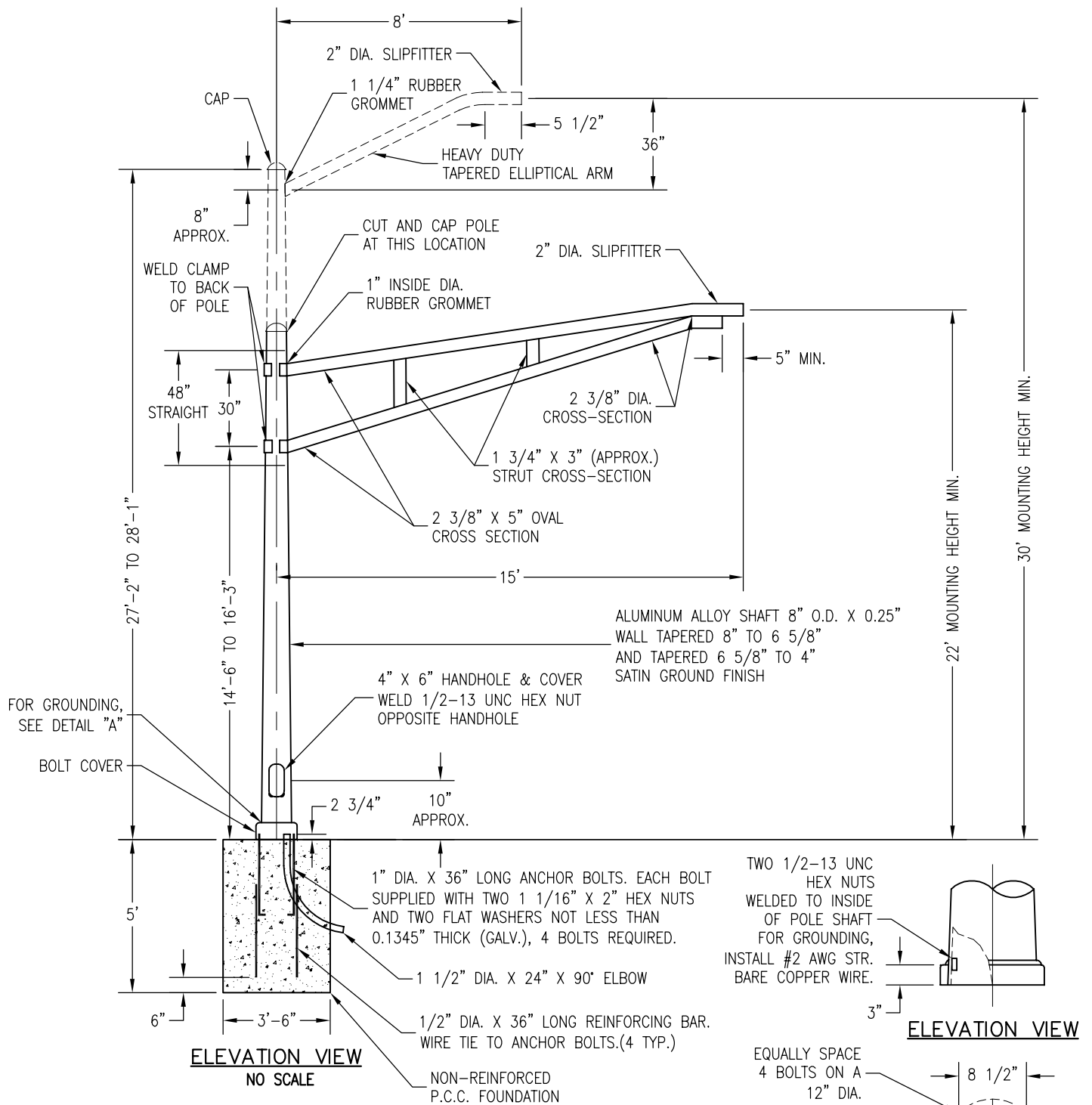
DRAWN BY: M. LEE
CHECKED BY: D. PITTON
APPROVED BY: T. SUPAN
DATE: AUGUST 2006

**TRAFFIC SIGNAL
POWER PANEL**

CITY OF SANTA CLARA

TR-3

PAGE: 40



NOTES:

1. THE POLE SHALL BE FURNISHED WITH GROUNDING CONNECTORS, ANCHOR BOLTS, NUTS, WASHERS, AND BOLT COVER.
2. IF FOUNDATION IS PLACED IN SIDEWALK, PLACE THE FOUNDATION TOP WITHIN 4" OF SIDEWALK SURFACE. REMAINDER OF FOUNDATION SHALL BE PLACED WHEN SIDEWALK IS INSTALLED.
3. IF FOUNDATION IS PLACED AT BACK OF SIDEWALK OR IN DIRT, FINISH TOP 6" TO 42" X 42" SQUARE.



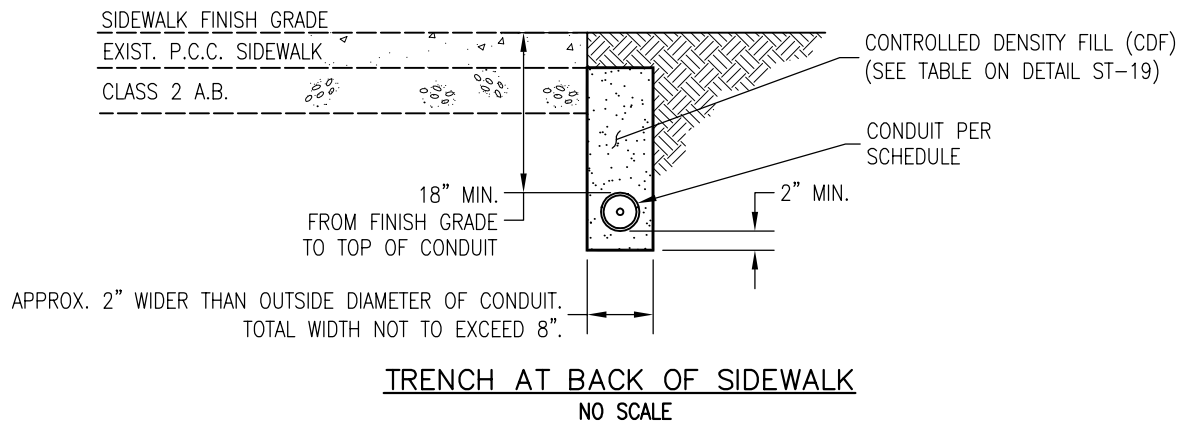
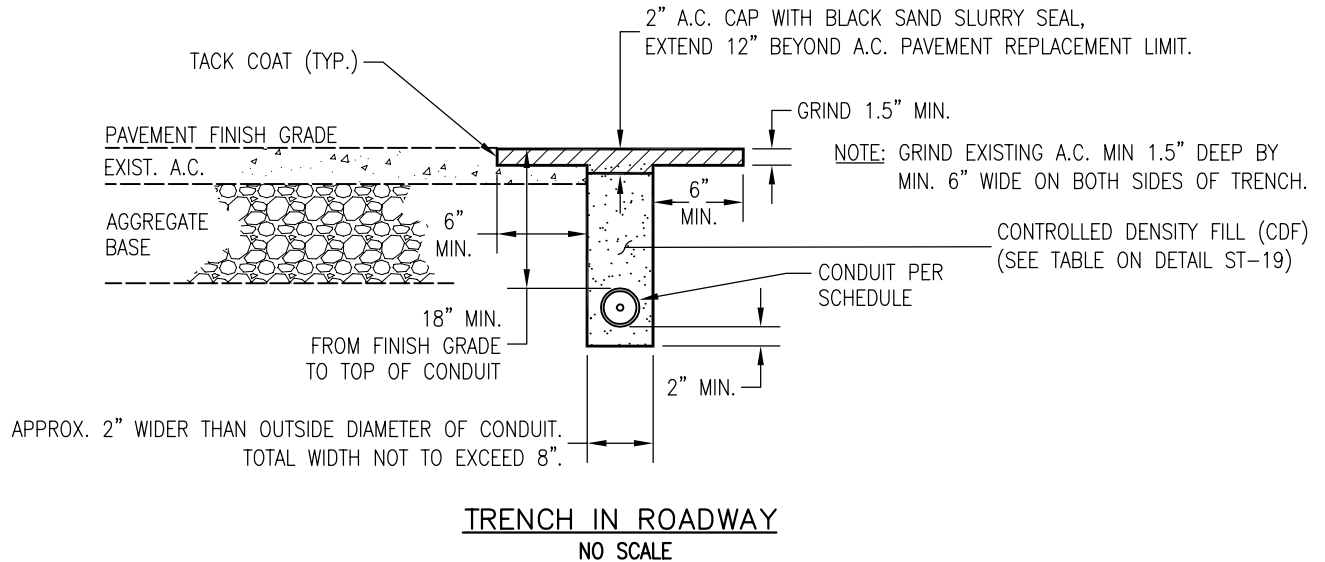
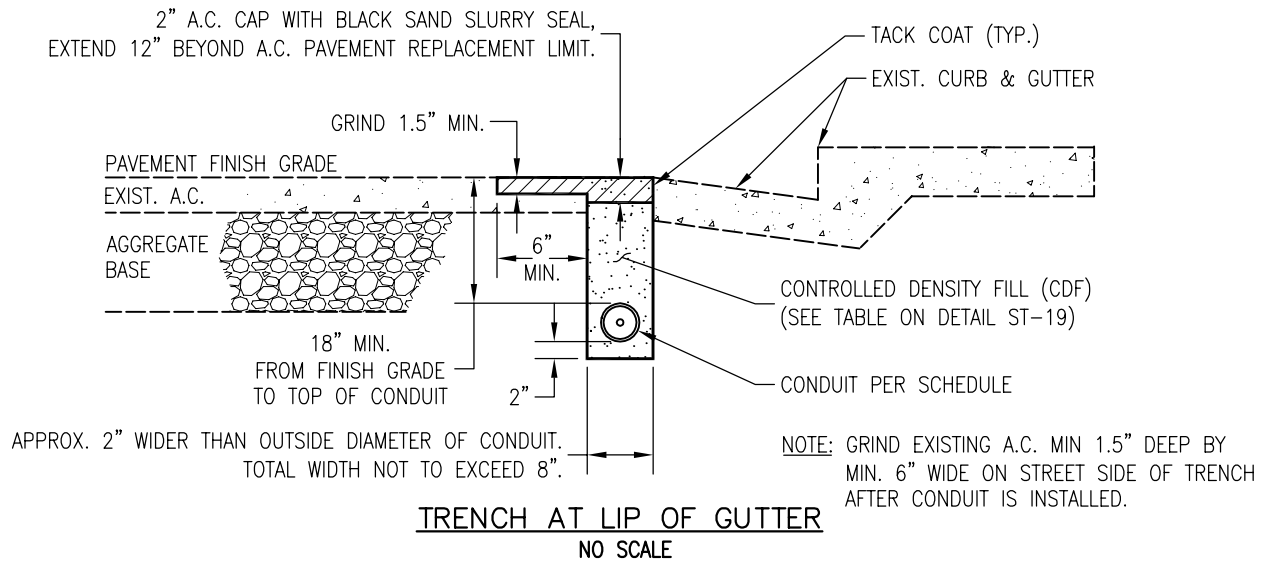
DRAWN BY: M. LEE
CHECKED BY: D. PITTON
APPROVED BY: T. SUPAN
DATE: NOVEMBER 2005

TYPE III POLE

CITY OF SANTA CLARA

TR-4

PAGE: 41



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APPROVED BY: T. SUPAN

DATE: AUGUST 2006

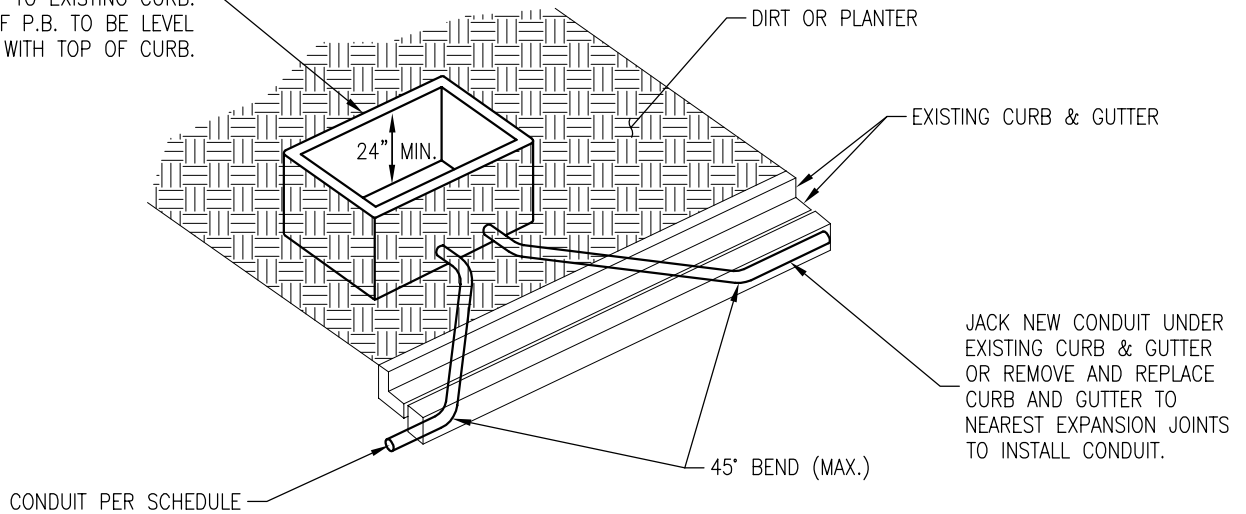
TRAFFIC SIGNAL TRENCH DETAILS

CITY OF SANTA CLARA

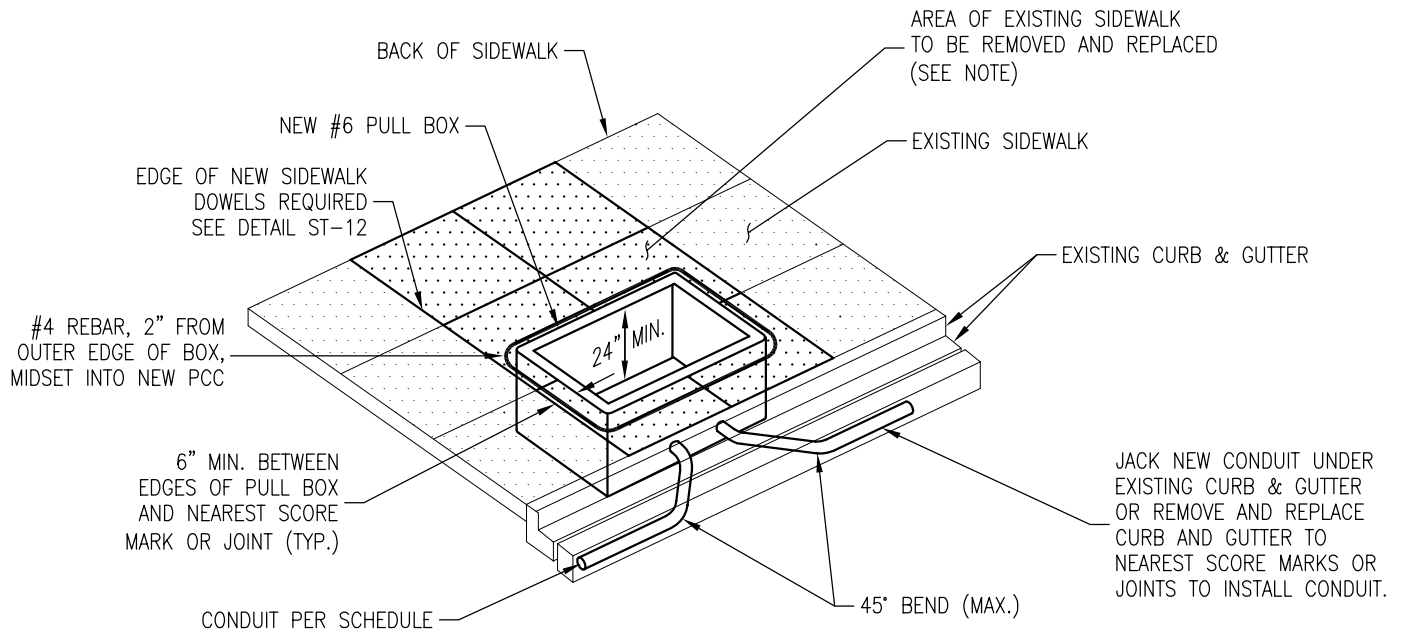
TR-5

PAGE: 42

LOCATE NEW #6 PULL BOX (P.B.)
AS NEAR AS POSSIBLE
TO EXISTING CURB.
TOP OF P.B. TO BE LEVEL
WITH TOP OF CURB.



PULL BOX INSTALLATION IN DIRT
NO SCALE



PULL BOX INSTALLATION IN SIDEWALK
NO SCALE

NOTE: IF SIDEWALK IS GREATER THAN 9', REMOVE AND REPLACE TO MIDDLE SCORE MARK.



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APPROVED BY: T. SUPAN

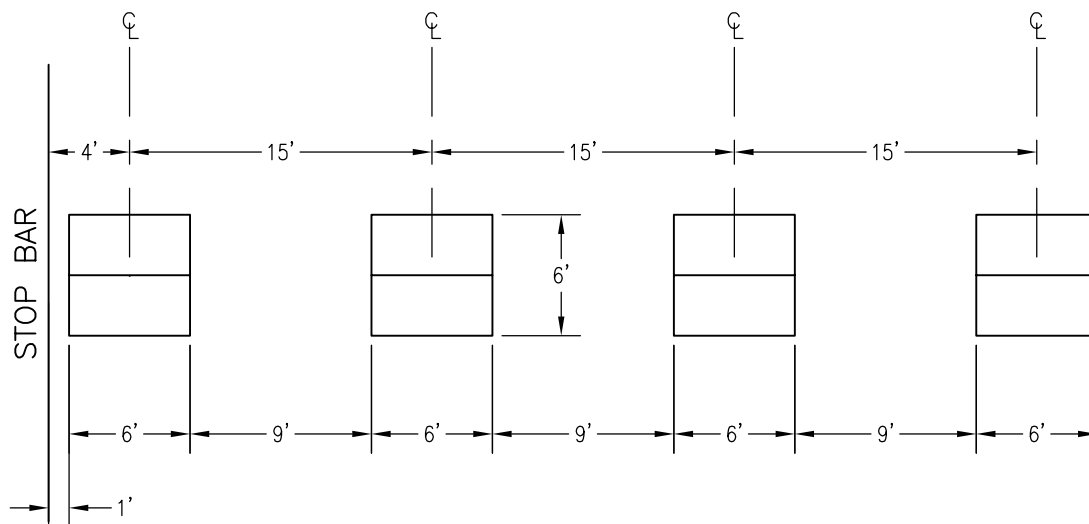
DATE: AUGUST 2006

TRAFFIC SIGNAL PULL BOX

CITY OF SANTA CLARA

TR-6

PAGE: 43



NOTES:

1. USE FOUR (4) LOOPS FOR LEFT TURNS.
2. USE THREE (3) LOOPS FOR STRAIGHT THROUGH.
3. DETECTOR LOOPS SHALL BE TYPE "Q".
4. TURNS SHALL BE 3-6-3.
5. SEALANT SHALL BE ELASTOMERIC OR HOT MELT RUBBERIZED ASPHALT.
6. DETECTOR LOOP WIRE SHALL BE TYPE 1.
LEAD IN CABLE SHALL CONFORM TO TYPE B.
7. SEE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
(CALTRANS) STANDARD PLANS, PAGES ES-5A AND ES-5B,
FOR INSTALLATION DETAILS.



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APPROVED BY: T. SUPAN

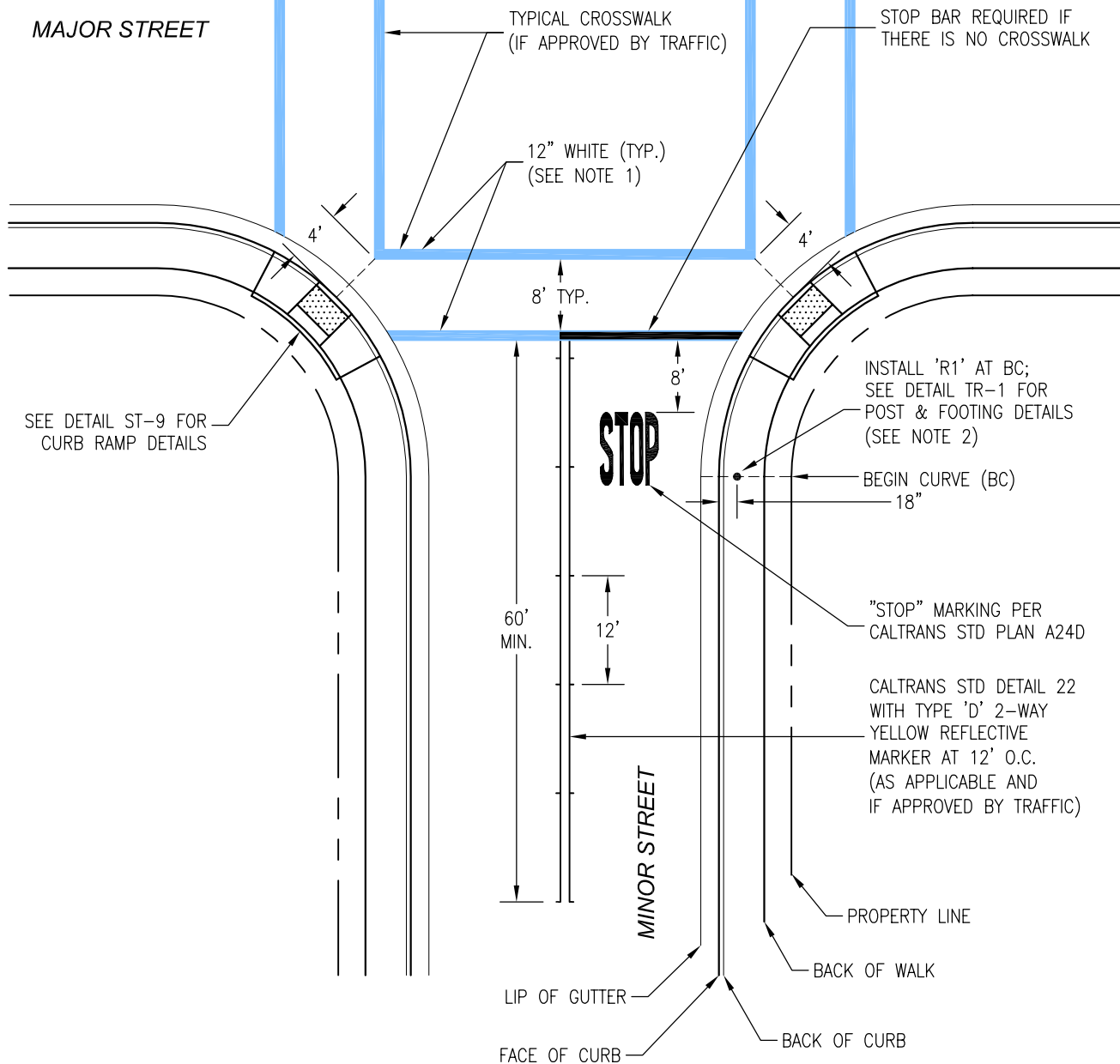
DATE: DECEMBER 2006

TRAFFIC SIGNAL DETECTOR
LOOPS SPACING DETAIL

CITY OF SANTA CLARA

TR-7

PAGE: 44



NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC OR PRE-FORMED THERMOPLASTIC PER SPECIFICATIONS.
2. INSTALL 'R1' MINIMUM OF 18" FROM FACE OF CURB, 7' FROM GROUND TO BOTTOM OF SIGN.
EDGE OF INSTALLED 'R1' SHALL BE 4" BEHIND FACE OF CURB (OFFSET AS NEEDED).
3. NO PERMANENT MARKINGS OR SIGNS SHALL BE PLACED UNTIL THE CITY TRAFFIC ENGINEER OR HIS REPRESENTATIVE APPROVES THE CAT-TRACKING OR PRE-MARKINGS IN THE FIELD.



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 APPROVED BY: **T. SUPAN**
 DATE: **DECEMBER 2006**

**TYPICAL STOP
INTERSECTION**

CITY OF SANTA CLARA

TR-8

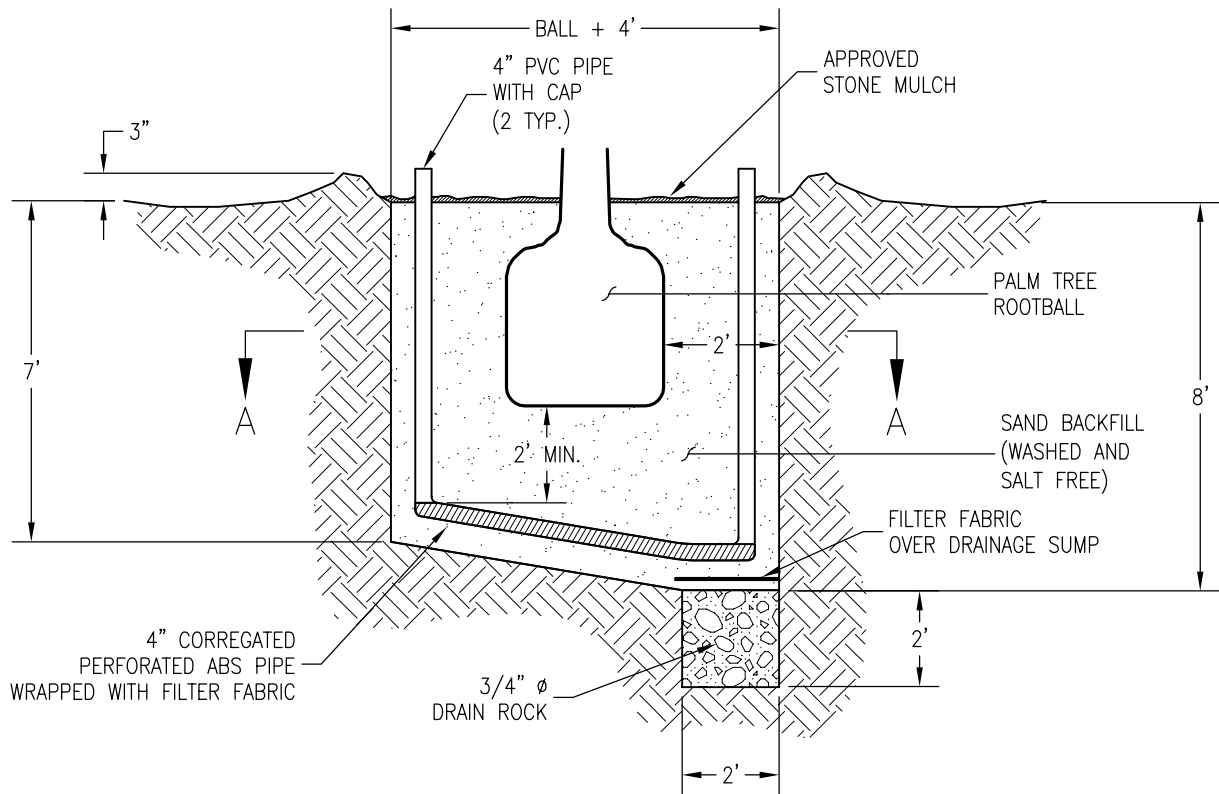
PAGE: 45

STANDARD DETAILS

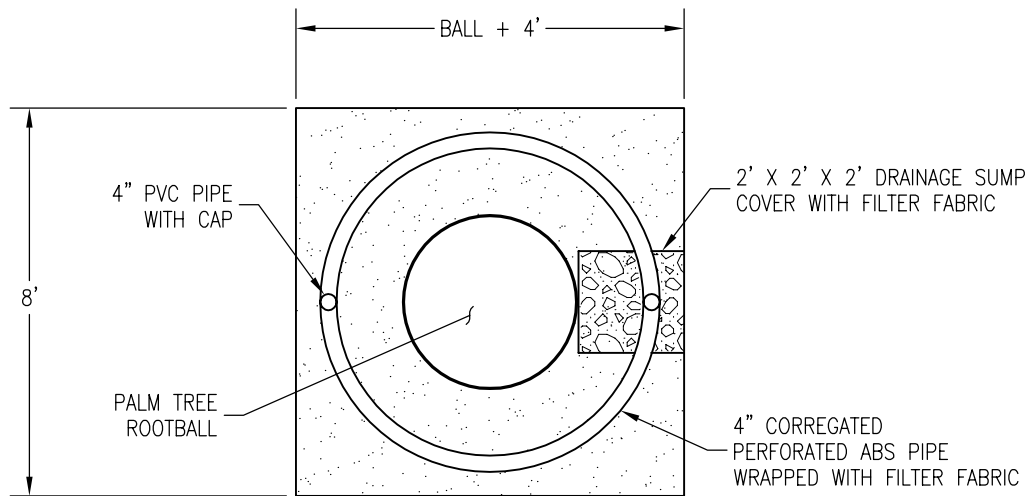
Department of Public Works
City of Santa Clara, CA

LANDSCAPE SECTION

DETAILS LS-1 TO LS-22



ELEVATION VIEW
NO SCALE



SECTION A-A
NO SCALE



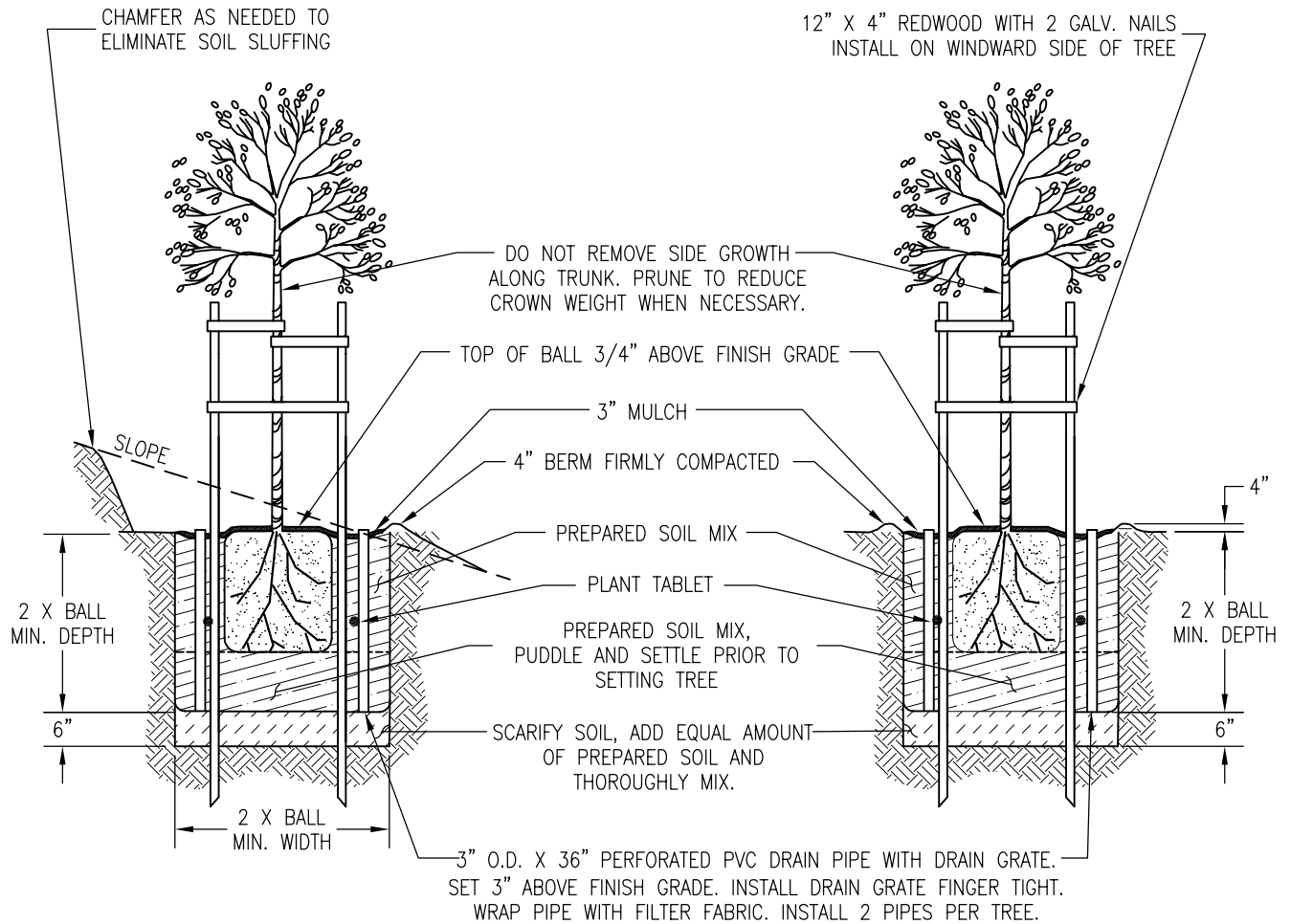
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 APPROVED BY: G. GOMEZ
 DATE: DECEMBER 2002

PALM TREE PLANTING
 CITY OF SANTA CLARA

LS-1

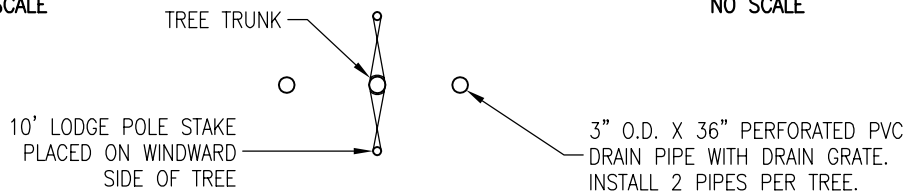
PAGE: 46

*** ALL TREES EXCEPT PALMS**



**SLOPE SURFACE
ELEVATION VIEW**
NO SCALE

**LEVEL SURFACE
ELEVATION VIEW**
NO SCALE



NOTES:

1. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 AT LEAST 5 DAYS PRIOR TO BEGINNING EXCAVATION WORK TO LOCATE EXISTING UTILITIES.
2. BUILD SOIL BERM MIN. 4" HIGH AND 3' FROM TREE TRUNK IN PLANTER STRIP. PROVIDE LOAM TOPSOIL NEEDED TO FORM BERM AND FILL HOLES.
3. SOIL, CONCRETE AND OTHER MATERIALS SPILLED ON STREET, SIDEWALK, AND PLANTING AREA SHALL BE CLEANED UP IMMEDIATELY BY CONTRACTOR.
4. IF TREE PLANTING IS DELAYED AFTER TREE WELLS ARE CONSTRUCTED, HOLES WILL BE FILLED IN WITH SOIL UNTIL TREES ARE AVAILABLE.
5. TREE PLANTING PIT DRAINAGE TEST TO BE: AUGER HOLE 18" DEEP 6" DIA., FILL WITH WATER, LET DRAIN, FILL WITH WATER AGAIN AND HAVE CITY ARBORIST ON SITE TO REVIEW DRAINAGE AND MAKE ANY NECESSARY RECOMMENDATIONS AT THAT TIME.



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 APPROVED BY: **G. GOMEZ**
 DATE: **DECEMBER 2002**

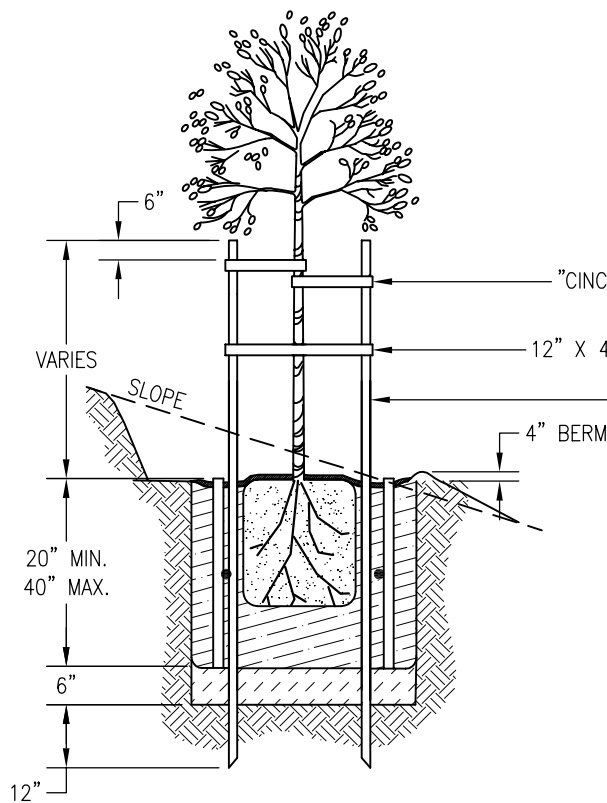
TREE PLANTING

CITY OF SANTA CLARA

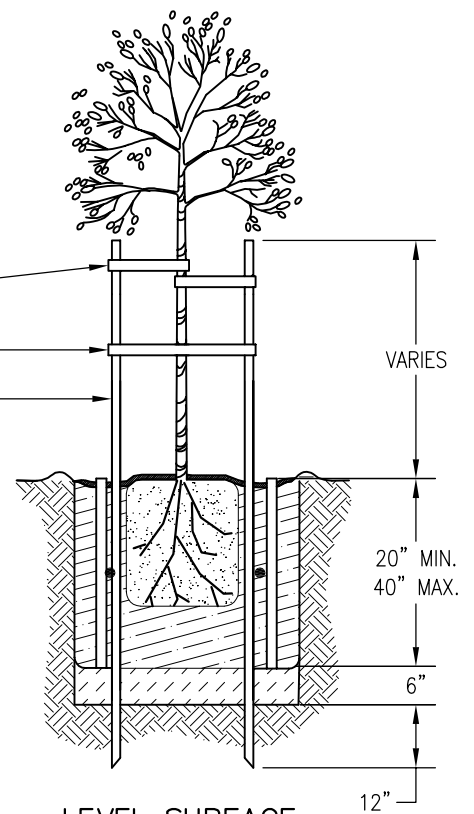
LS-2

PAGE: **47**

* ALL TREES EXCEPT PALMS



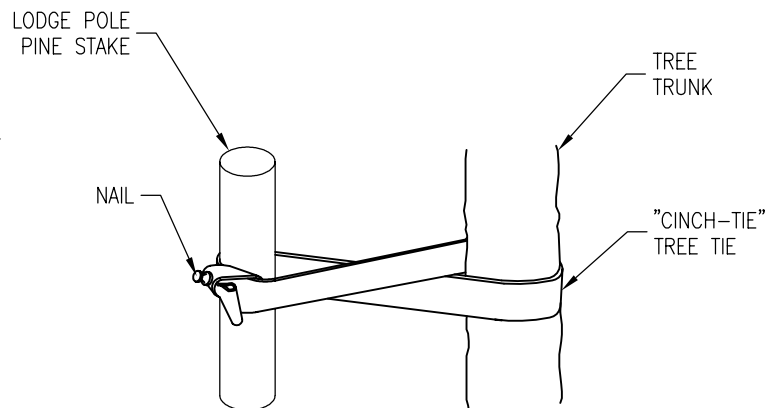
SLOPE SURFACE
ELEVATION VIEW
NO SCALE



LEVEL SURFACE
ELEVATION VIEW
NO SCALE

NOTES:

1. USE 2 STAKES AND 2 "CINCH-TIE" TREE TIES.
2. TIE TREE TRUNK 6" ABOVE BENDING MOMENT OF TREE.
3. TIE SHOULD ALLOW TRUNK FLEXIBILITY BUT NOT ALLOW THE STAKE TO RUB AGAINST THE TRUNK.
4. CUT STAKES 6" ABOVE TIES.
5. FOR SINGLE STAKE TREES, PLACE STAKE ON WINDWARD SIDE OF TREE.



"CINCH-TIE"
TREE TIE DETAIL
NO SCALE



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CHECKED BY: J. MENDOZA
APPROVED BY: G. GOMEZ
DATE: DECEMBER 2002

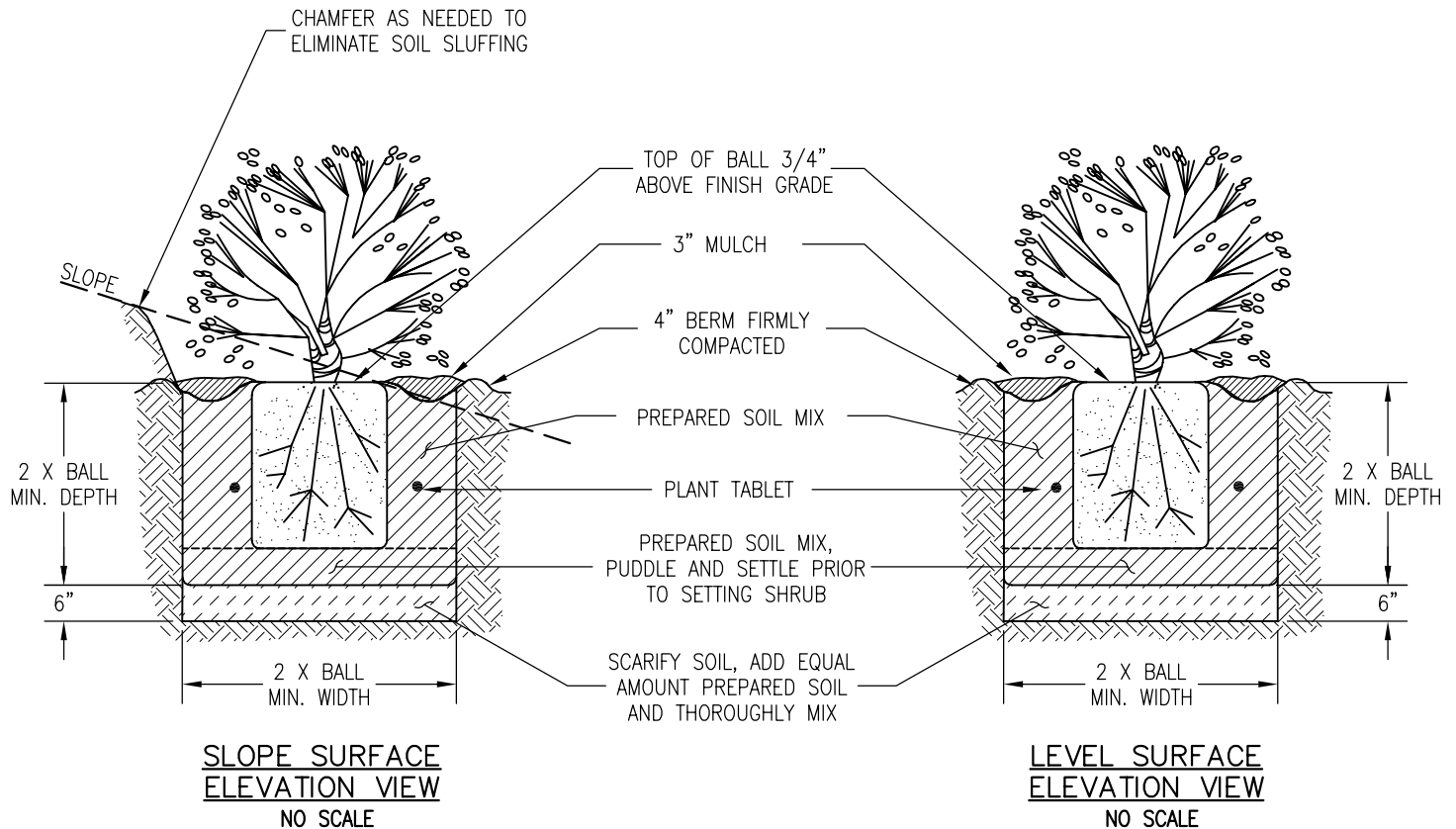
TREE STAKING

CITY OF SANTA CLARA

LS-3

PAGE: 48

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NOTES:

1. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 AT LEAST 5 DAYS PRIOR TO BEGINNING EXCAVATION WORK TO LOCATE EXISTING UTILITIES.
2. BUILD SOIL BERM MIN. 4" HIGH AND 3' FROM SHRUB TRUNK IN PLANTER STRIP. PROVIDE LOAM TOPSOIL NEEDED TO FORM BERM AND FILL HOLES.
3. SOIL, CONCRETE AND OTHER MATERIALS SPILLED ON STREET, SIDEWALK, AND PLANTING AREA SHALL BE CLEANED UP IMMEDIATELY BY CONTRACTOR.
4. IF TREE PLANTING IS DELAYED AFTER TREE WELLS ARE CONSTRUCTED, HOLES WILL BE FILLED IN WITH SOIL UNTIL TREES ARE AVAILABLE.
5. SHRUB PLANTING PIT DRAINAGE TEST TO BE CONDUCTED AT 3 DIFFERENT LOCATIONS ON SITE. TEST TO BE: AUGER HOLE 18" DEEP 6" DIA., FILL WITH WATER, LET DRAIN, FILL WITH WATER AGAIN AND HAVE CITY ARBORIST ON SITE TO REVIEW DRAINAGE AND MAKE ANY NECESSARY RECOMMENDATIONS AT THAT TIME.



DRAWN BY: M. LEE
 CHECKED BY: J. MENDOZA
 APPROVED BY: G. GOMEZ
 DATE: DECEMBER 2002

SHRUB PLANTING

CITY OF SANTA CLARA

LS-5

PAGE: 50

PRUNING MAY BE NECESSARY TO FACILITATE REMOVAL OF DEAD WOOD, CONFLICT WITH NEW STRUCTURE, OR REDUCE STRESS AND SHALL BE CARRIED OUT BY A QUALIFIED ARBORIST AND SUBJECT TO APPROVAL AND DIRECTION OF CITY ARBORIST.

DRIP LINE

DRIP LINE

FENCE THE PERIMETER OF DRIP LINE WITH 6' HIGH CHAIN LINK FENCE OR APPROVED EQUAL.

FENCE (TYP.)

BORING OF UTILITY LINES IS LESS DAMAGING TO TREES THAN TRENCHING.

WHEN EXCAVATING AND TRENCHING ADJACENT TO DRIPLINES, APPROVAL OF CITY ARBORIST IS REQUIRED.

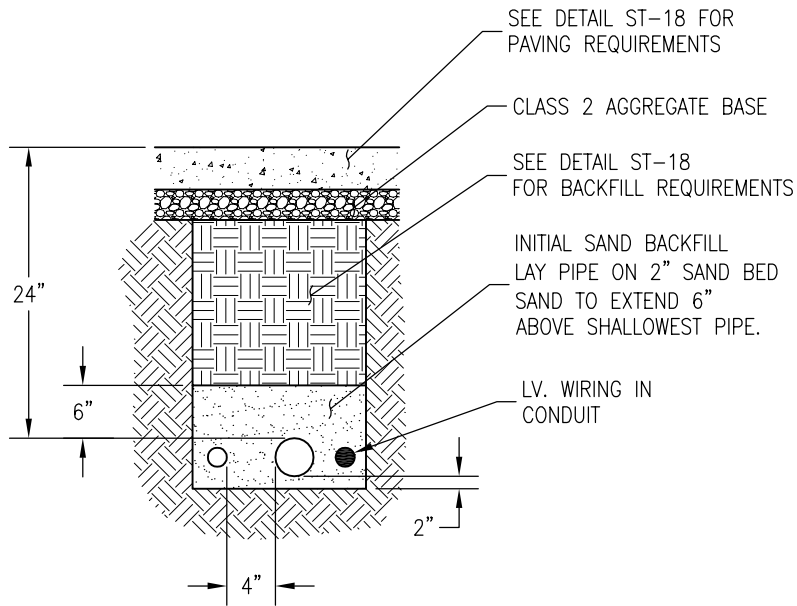
1. CUT AS FEW ROOTS AS POSSIBLE AND CUT THEM CLEAN.
2. PAINT CUT ROOTS WITH APPROVED DRESSING.
3. BACKFILL AS SOON AS POSSIBLE TO AVOID ROOTS FROM DRYING.

NOTES:

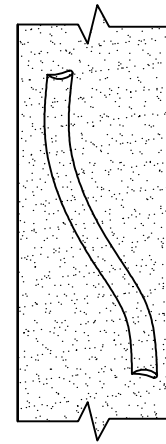
1. PROVIDE ADEQUATE RETAINING WALL – NO CLOSER THAN DRIP LINE. LARGE AMOUNTS OF FILL WILL INHIBIT DELICATE BALANCE BETWEEN ROOTS AND SOIL.
2. AVOID ANY PONDING BY DRAINING LOW POINTS.
3. PRIOR TO GRADING, INSTALL FENCES AND BARRICADES AROUND TREE.
4. FERTILIZE AND WATER TO MINIMIZE SHOCK AS DIRECTED BY QUALIFIED ARBORIST.



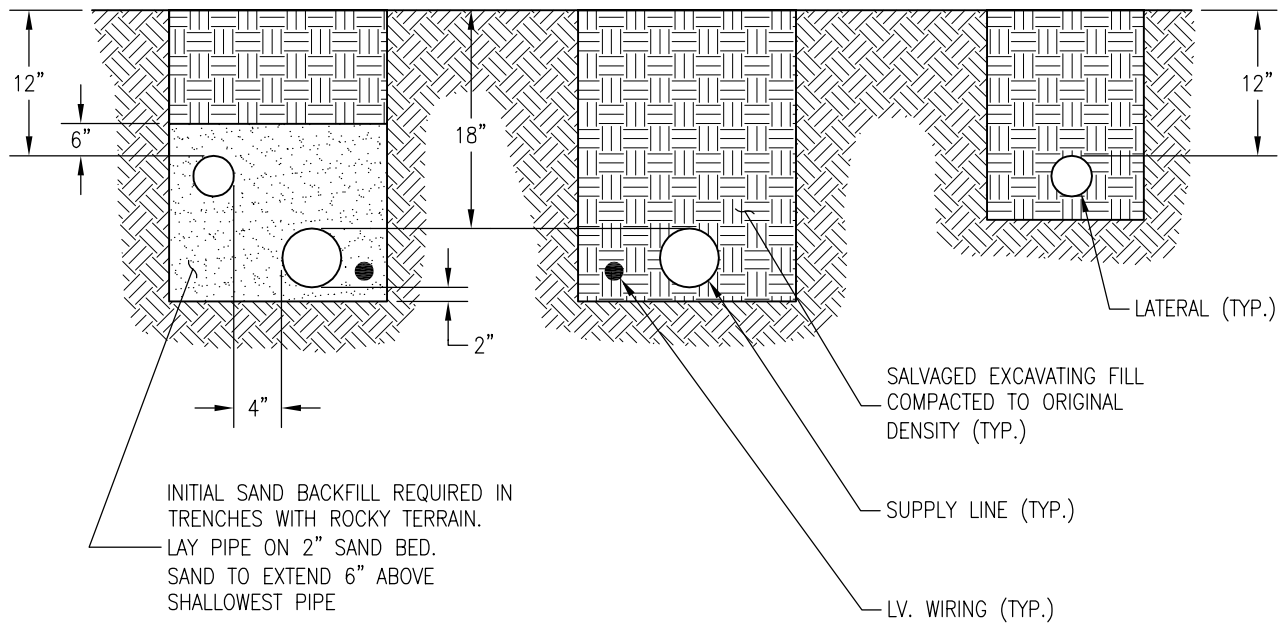
DRAWN BY: M. LEE	TREE PROTECTION	LS-6
CHECKED BY: J. MENDOZA		
APPROVED BY: G. GOMEZ		
DATE: DECEMBER 2002	CITY OF SANTA CLARA	PAGE: 51



TRENCH IN PAVED AREA
ELEVATION VIEW
 NO SCALE



SNAKE ALL PIPE
 IN TRENCHES
 AS SHOWN



TRENCHES IN PLANTING AREA
ELEVATION VIEW
 NO SCALE

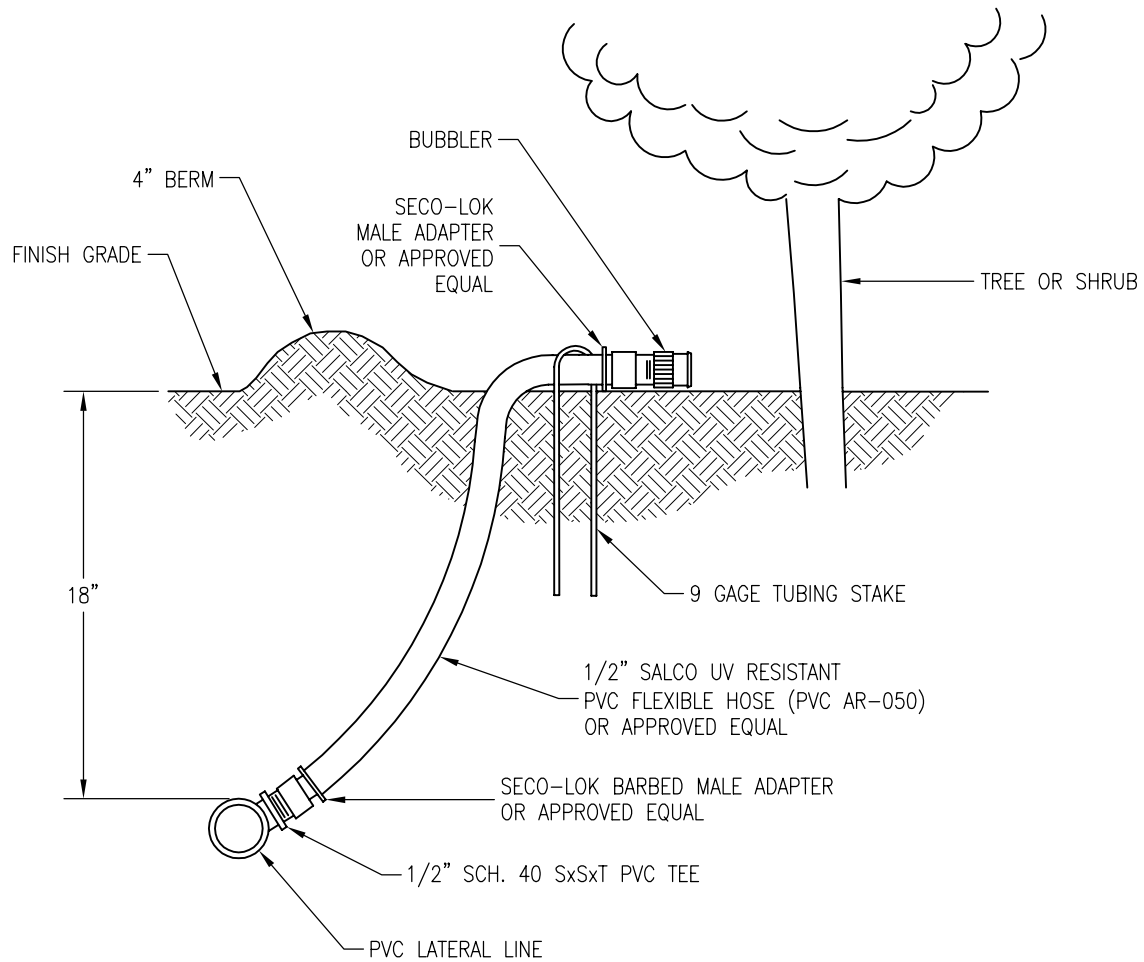


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 DATE: DECEMBER 2002

LANDSCAPE
 TRENCHING DETAILS
 CITY OF SANTA CLARA

LS-7

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ELEVATION VIEW
NO SCALE

NOTES:

1. ONE BUBBLER PER TREE TO BE PLACED UPHILL SIDE OF ROOTBALL.
2. TREE BUBBLER TO BE A MINIMUM 1' AWAY FROM AERATION TUBE.



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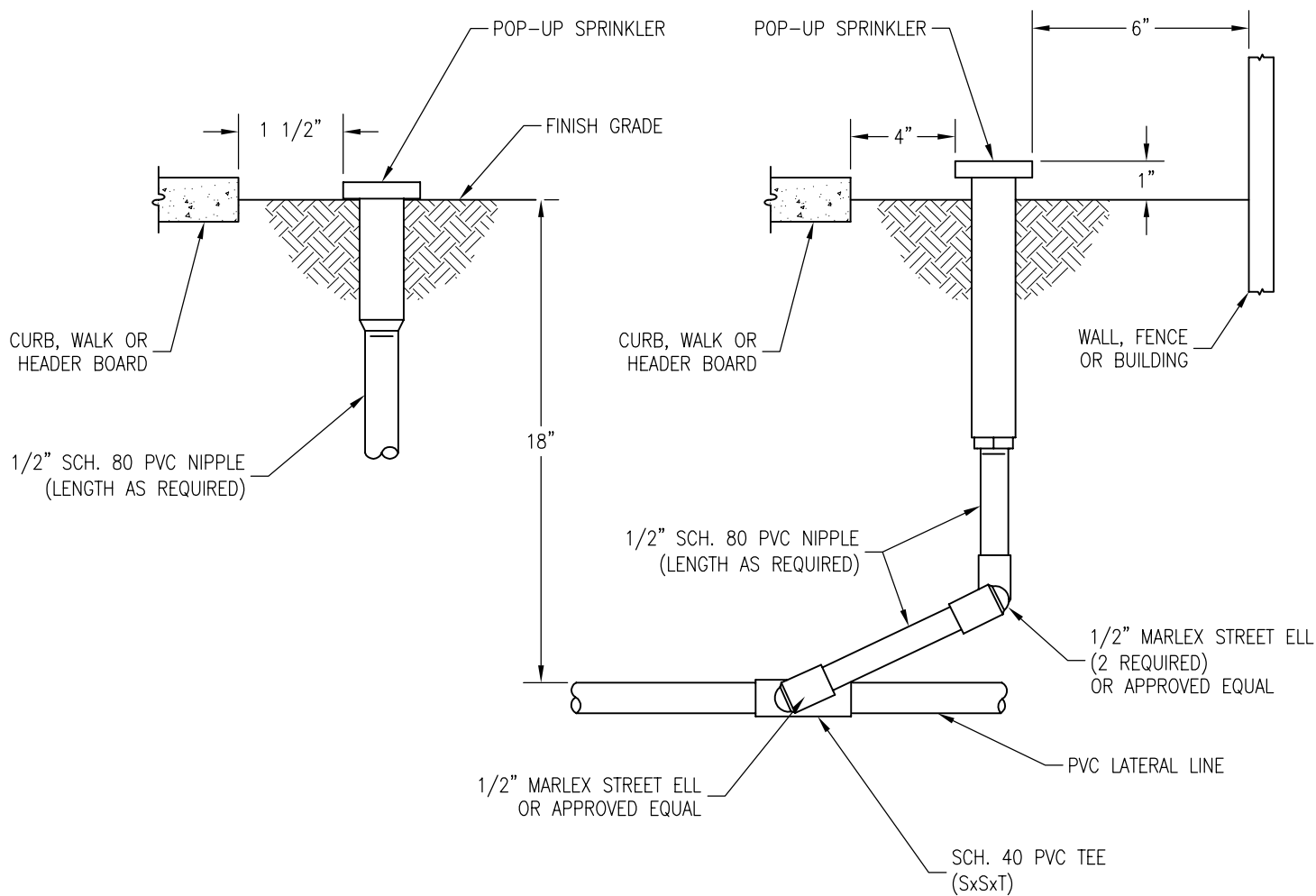
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**TREE AND SHRUB
BUBBLER**

CITY OF SANTA CLARA

LS-8

PAGE: 53



ELEVATION VIEW
NO SCALE



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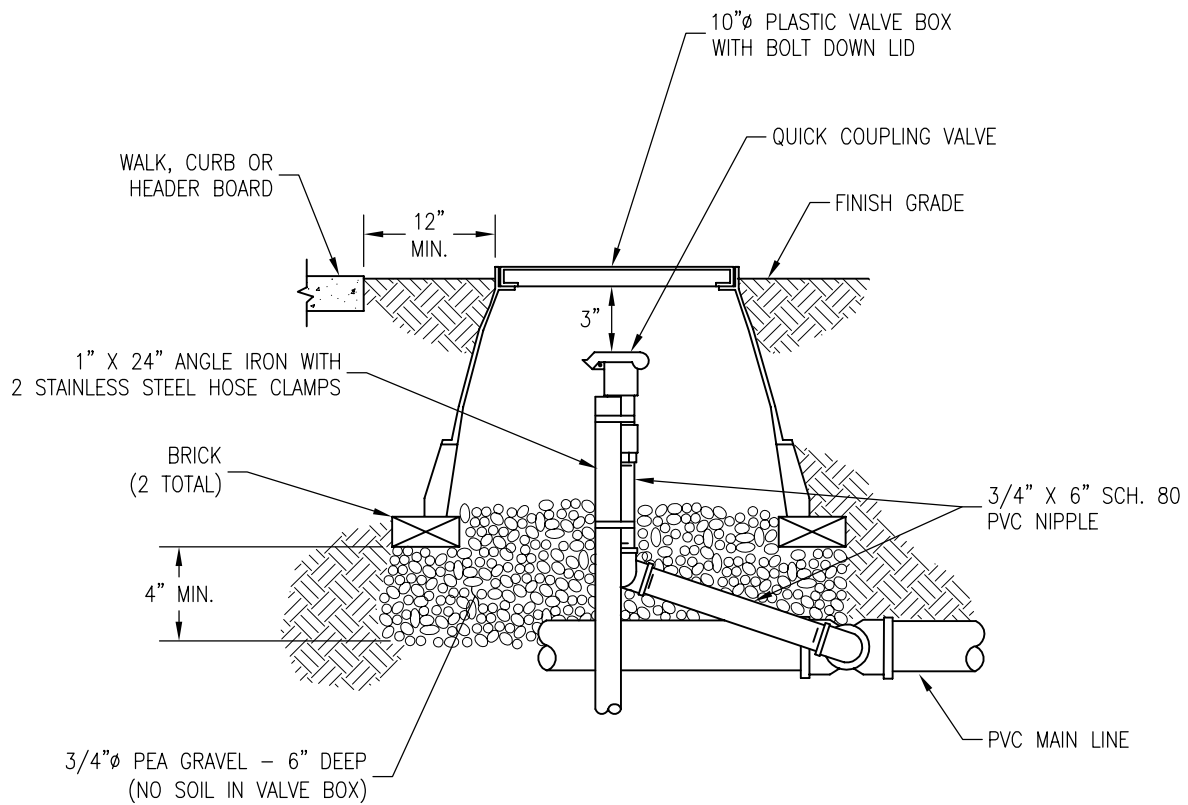
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POP-UP SPRINKLER

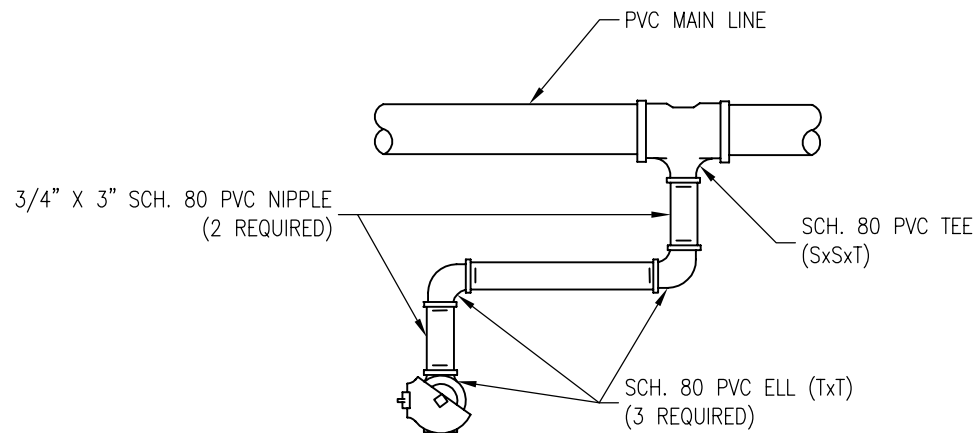
CITY OF SANTA CLARA

LS-9

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ELEVATION VIEW
NO SCALE



PLAN VIEW
NO SCALE



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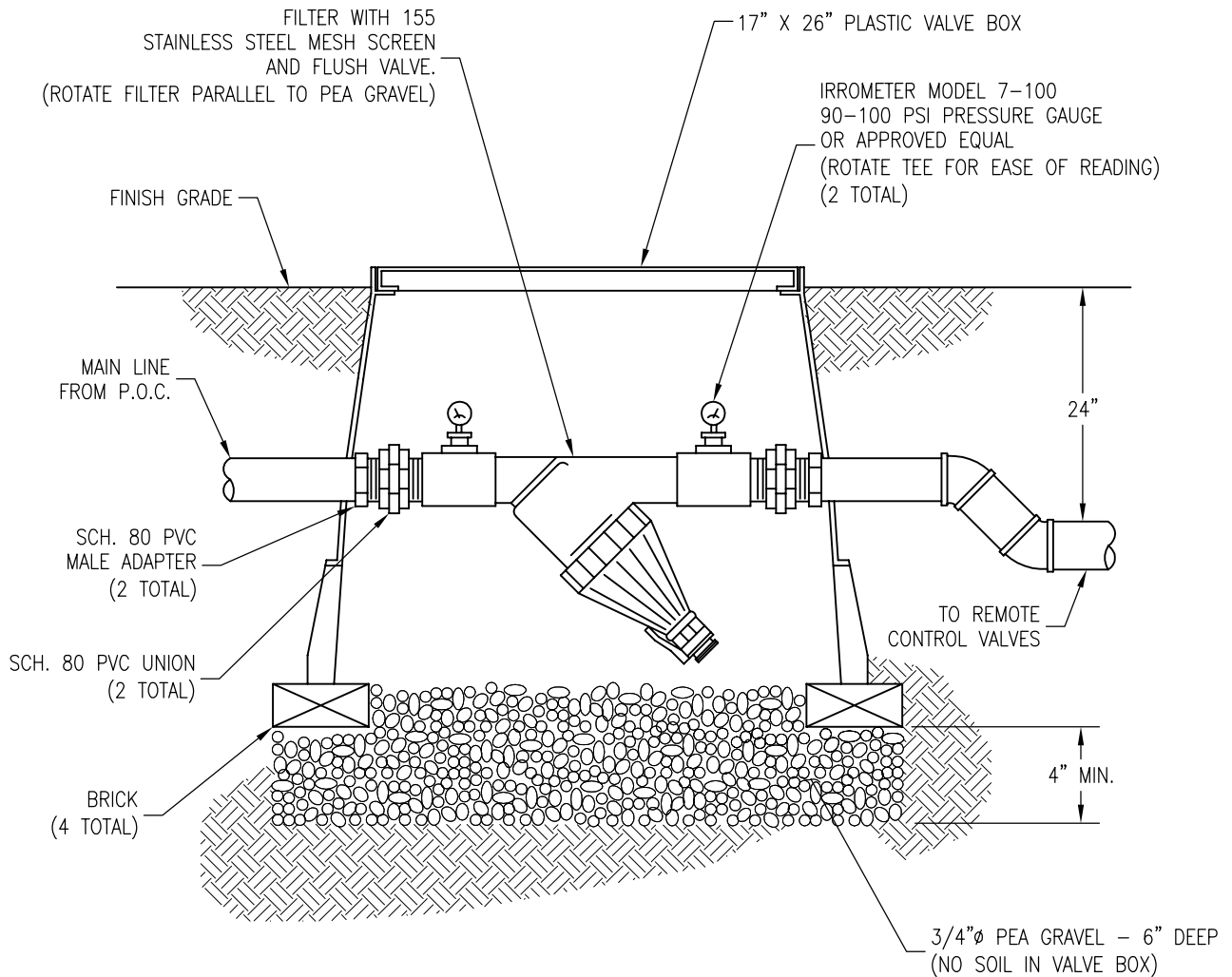
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QUICK COUPLER

CITY OF SANTA CLARA

LS-10

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ELEVATION VIEW
 NO SCALE



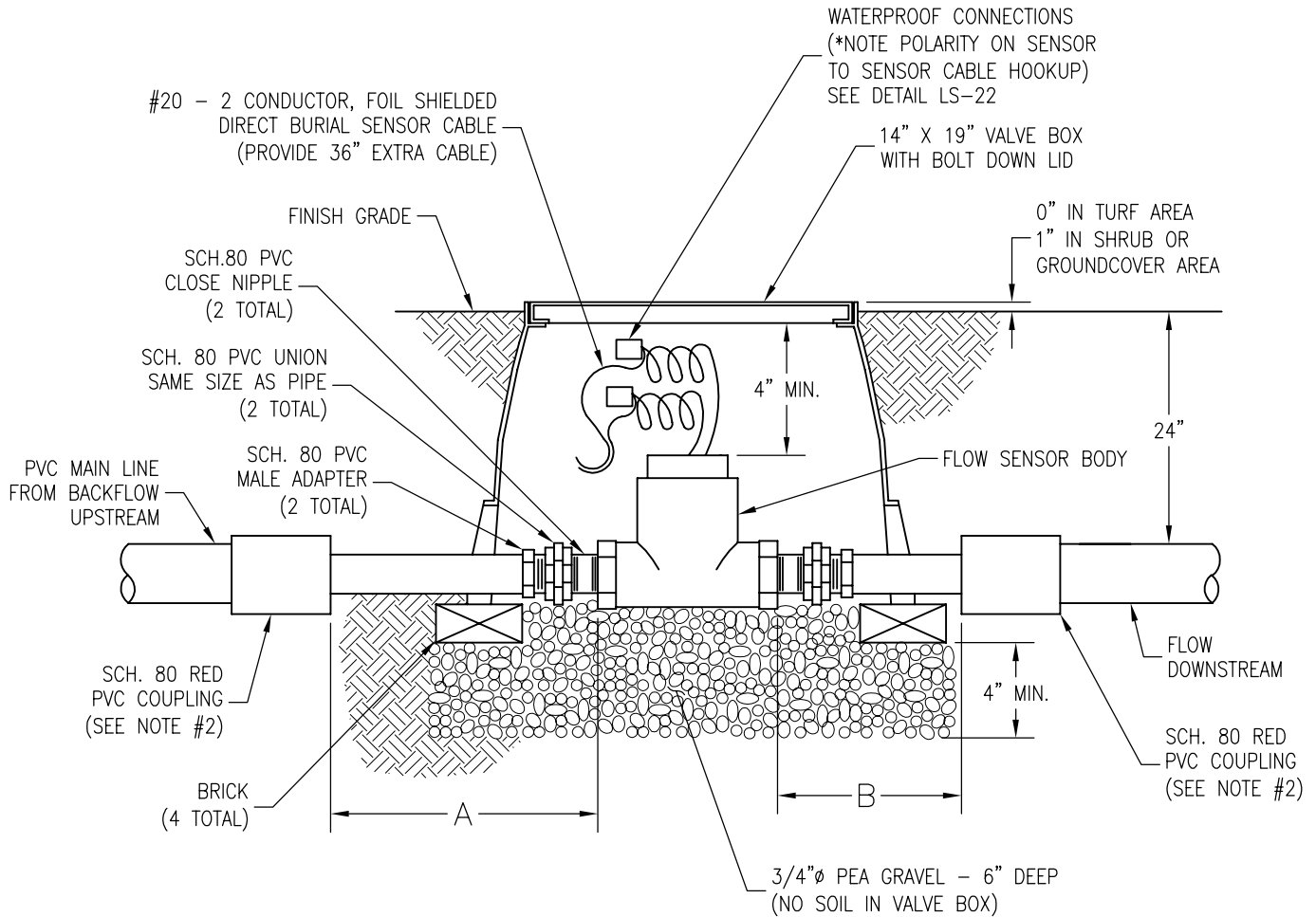
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LANDSCAPE FILTER

CITY OF SANTA CLARA

LS-11

PAGE: 56



ELEVATION VIEW
NO SCALE

NOTES:

1. FLOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) VERTICAL AND BODY (TEE) POSITIONED HORIZONTALLY.
2. REDUCER COUPLING MUST BE AT A DISTANCE EQUAL TO 10 TIMES THE PIPE DIAMETER ON THE UPSTREAM SIDE (A) AND 5 TIMES THE THE PIPE DIAMETER ON THE DOWNSTREAM (B) SIDE.

EXAMPLE: FOR 3" FLOW SENSOR, 30" ON UPSTREAM SIDE AND 15" ON DOWNSTREAM SIDE.



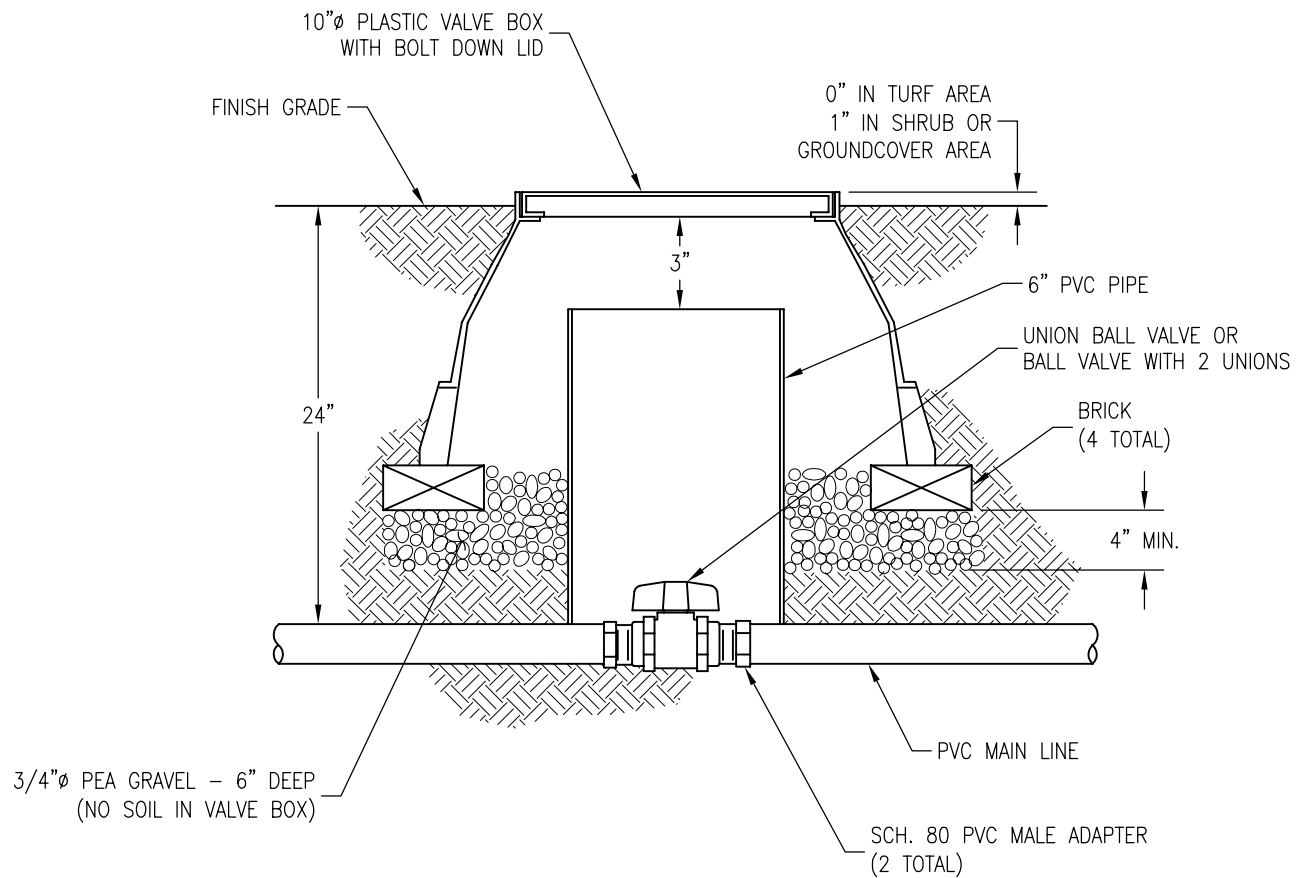
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FLOW SENSOR

CITY OF SANTA CLARA

LS-12

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ELEVATION VIEW
NO SCALE

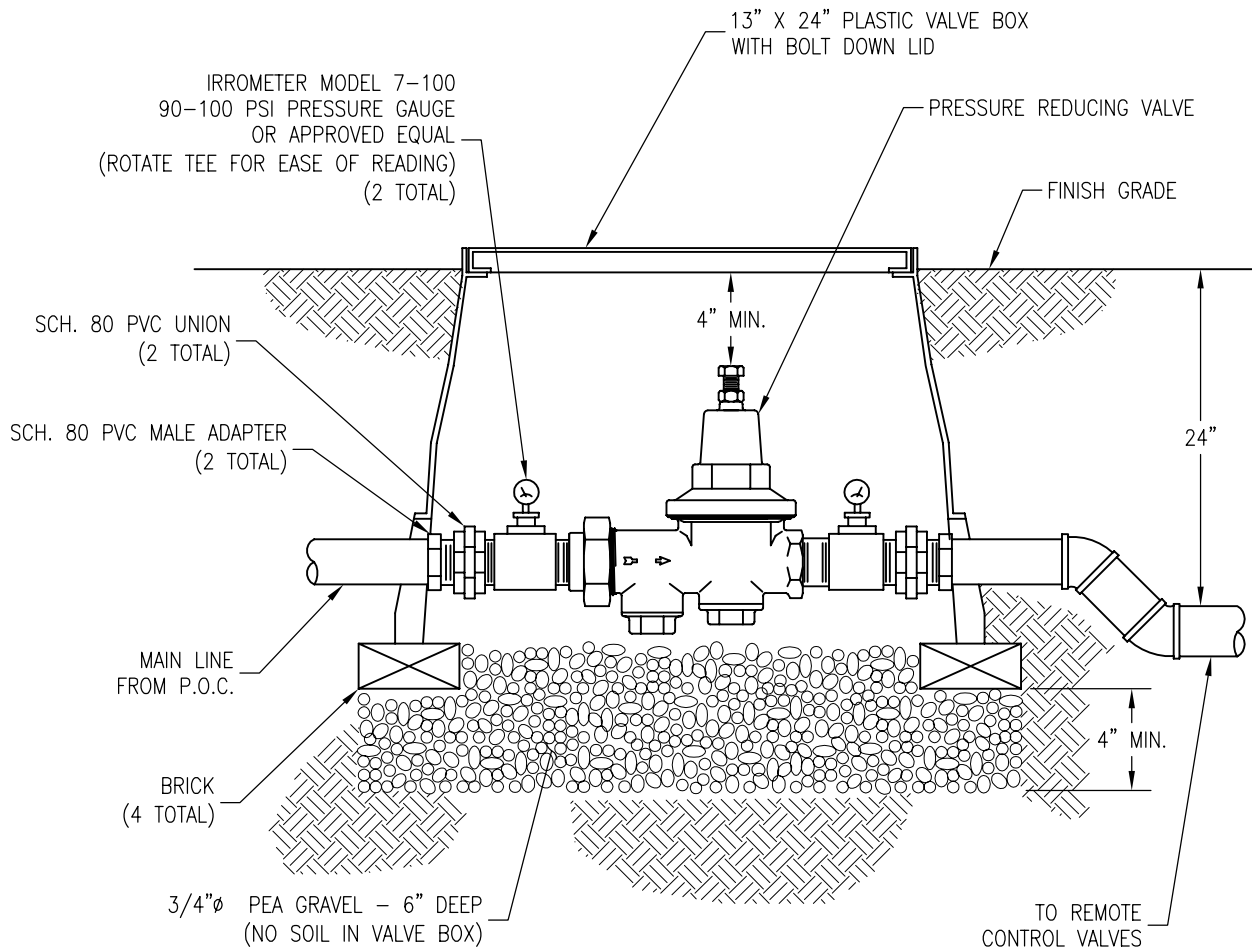


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UNION BALL VALVE
 CITY OF SANTA CLARA

LS-13

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ELEVATION VIEW
NO SCALE



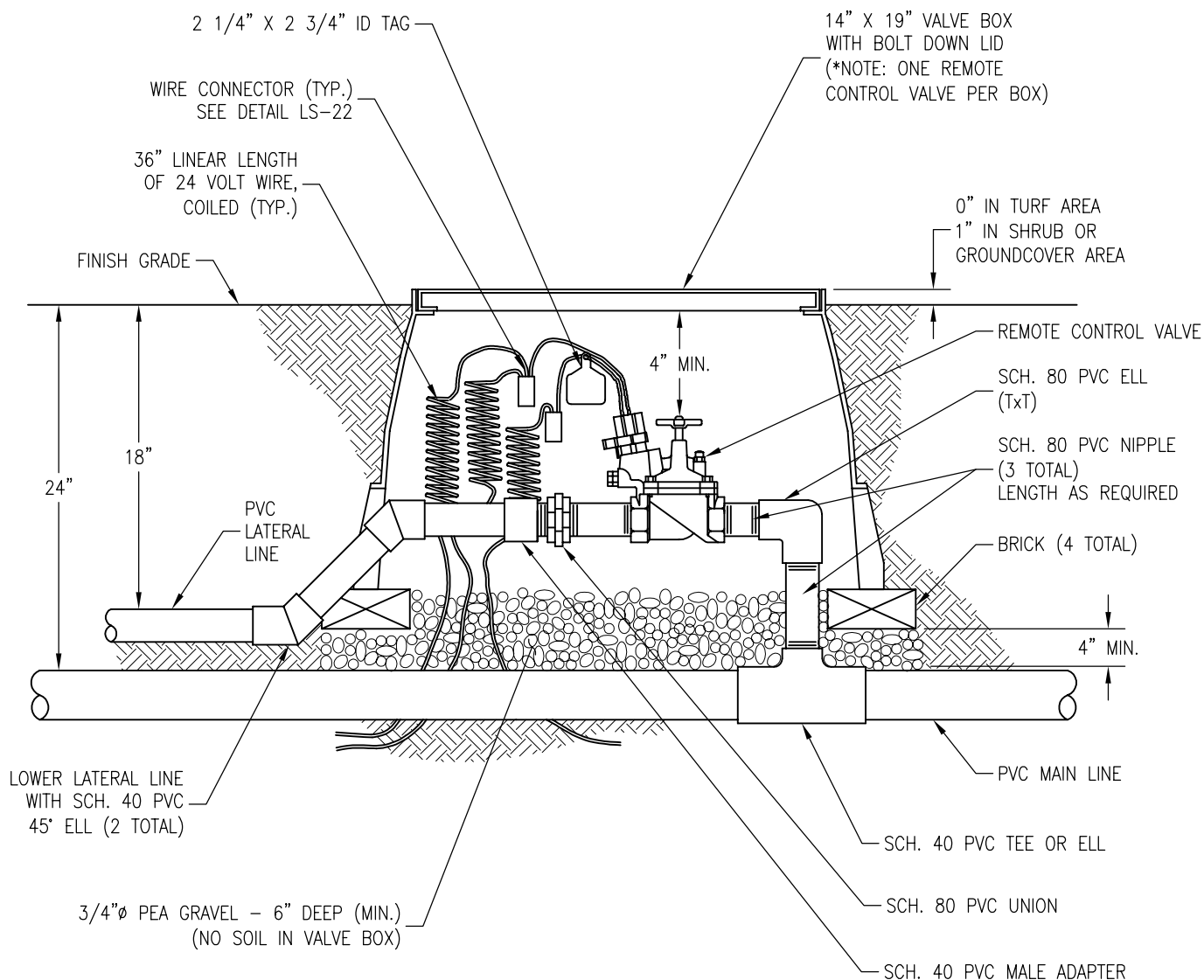
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PRESSURE REDUCING VALVE

CITY OF SANTA CLARA

LS-14

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ELEVATION VIEW
NO SCALE



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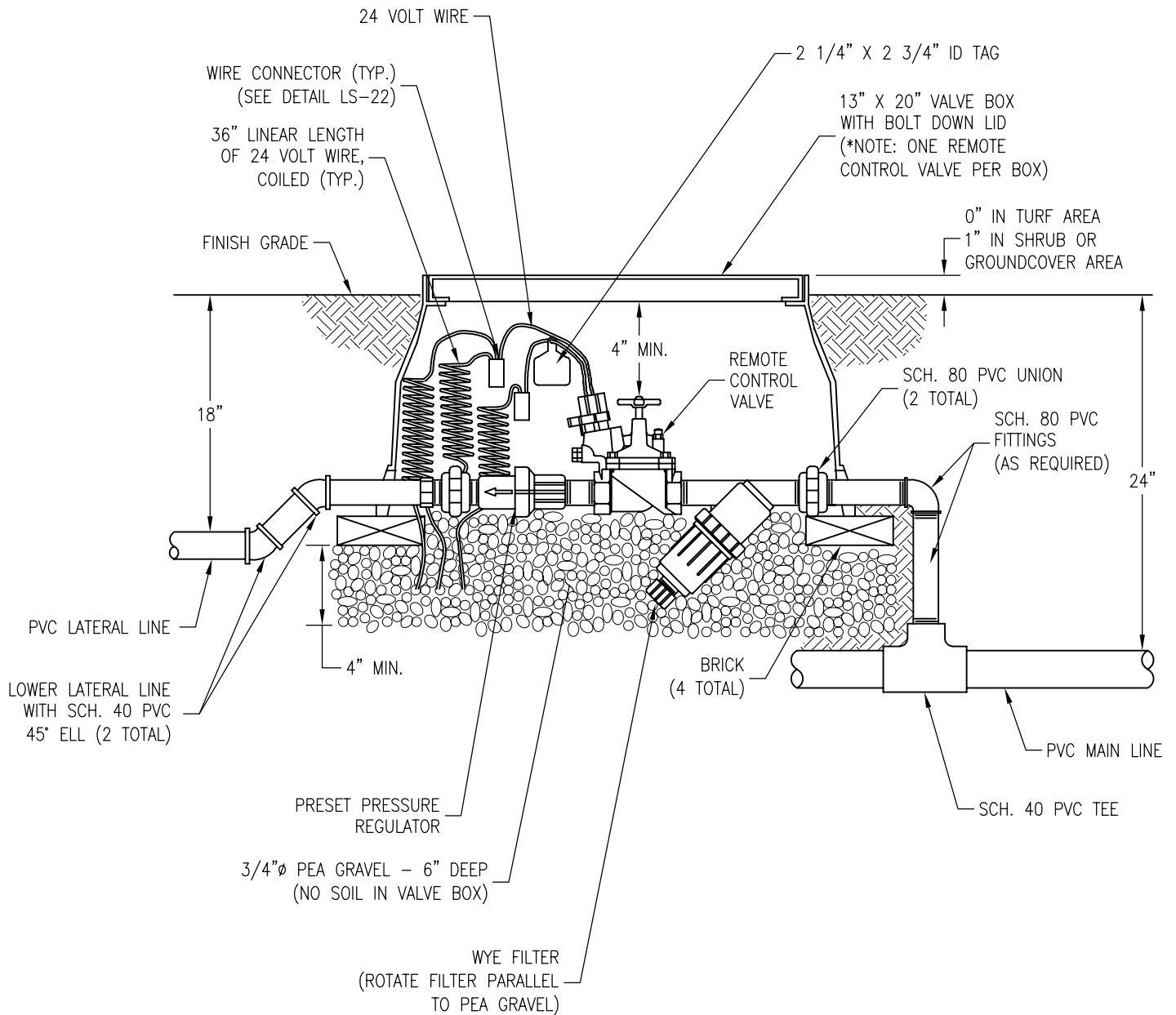
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REMOTE CONTROL VALVE

CITY OF SANTA CLARA

LS-15

PAGE: 60



ELEVATION VIEW
NO SCALE



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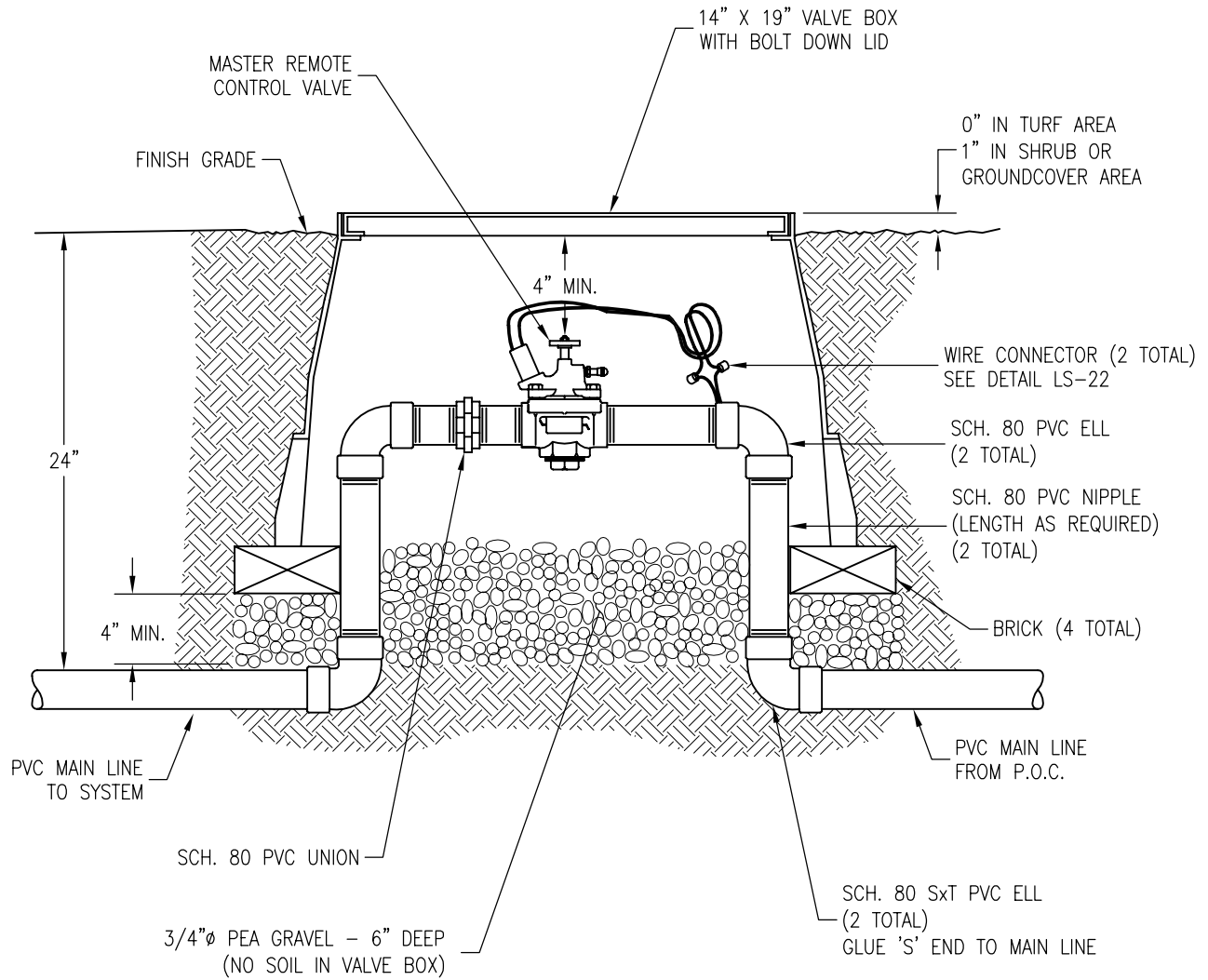
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LOW VOLUME
REMOTE CONTROL VALVE

CITY OF SANTA CLARA

LS-16

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ELEVATION VIEW
NO SCALE



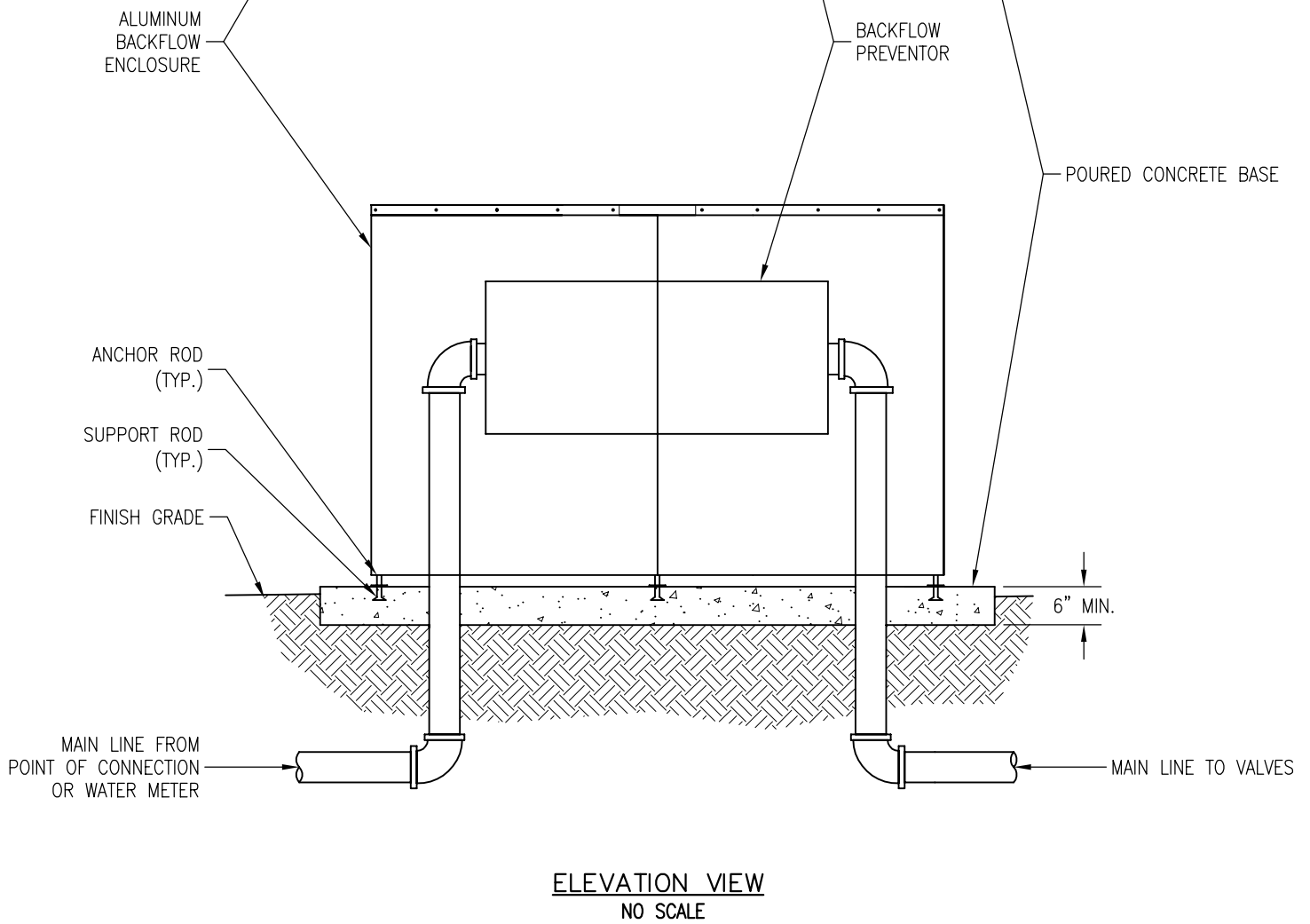
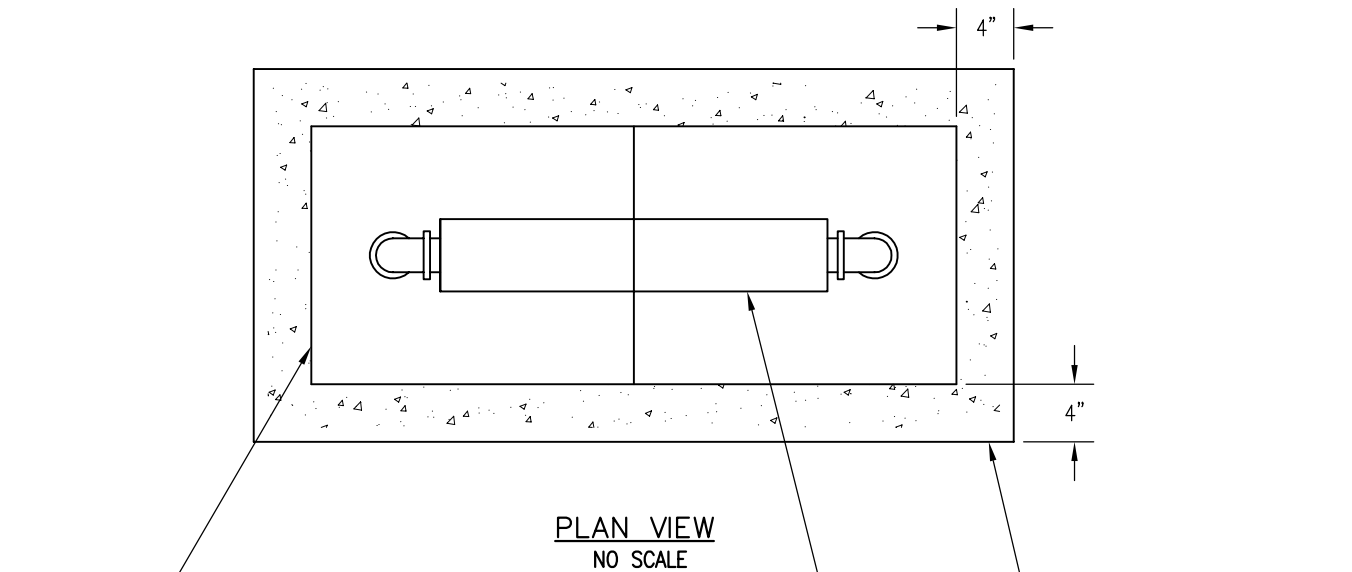
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MASTER REMOTE CONTROL VALVE

CITY OF SANTA CLARA

LS-17

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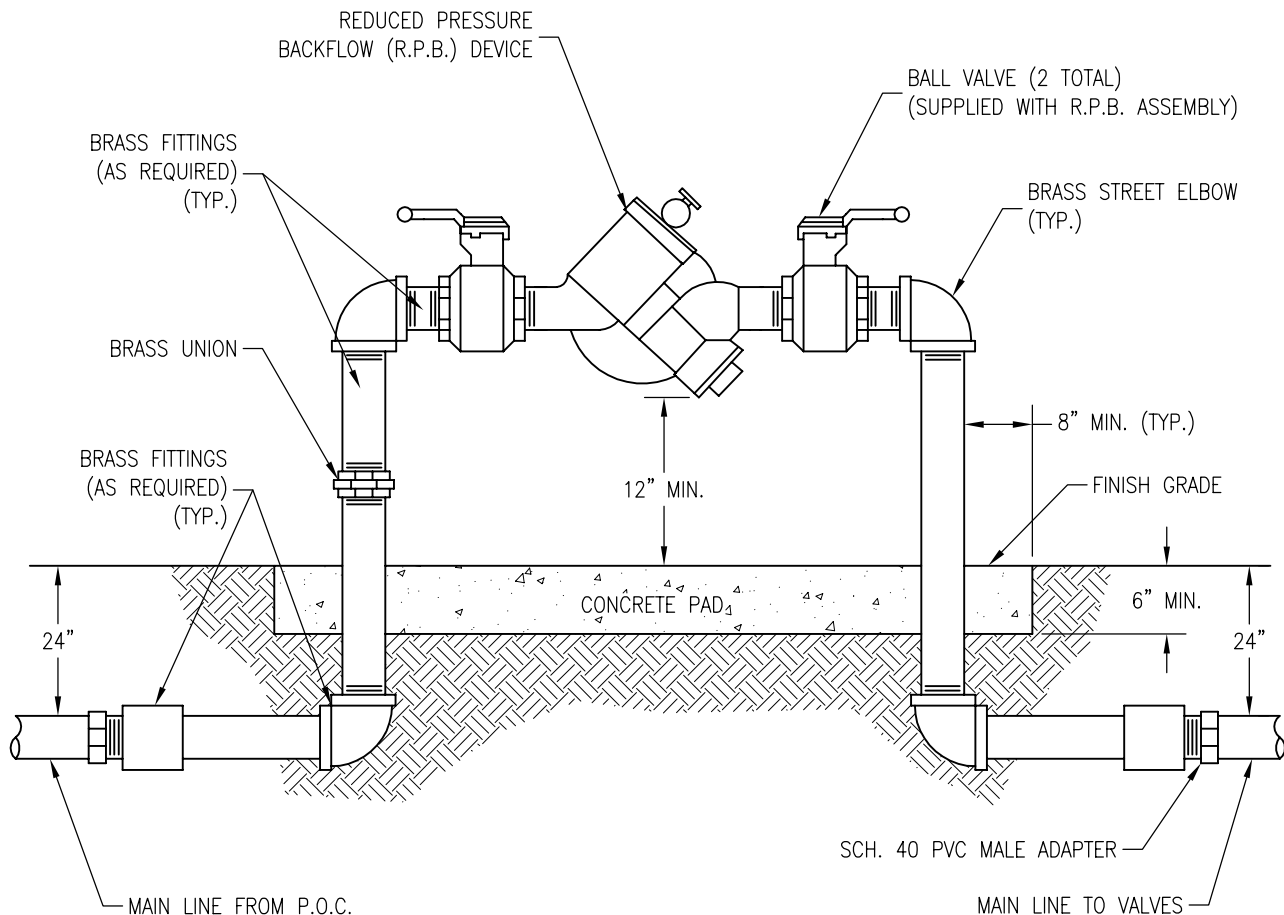
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BACKFLOW ENCLOSURE

CITY OF SANTA CLARA

LS-18

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ELEVATION VIEW
NO SCALE

NOTES:

1. EVENLY COAT METAL FITTINGS EXPOSED TO SOIL AND CONCRETE WITH 3M SCOTCHRAP PIPE PRIMER AND THEN WRAP WITH 3M SCOTCHRAP NO. 51 BLACK TAPE (3/4\" OVERLAP).
2. FOR SERVICE CONNECTION, REFER TO WATER & SEWER DEPARTMENT STANDARD DETAILS.

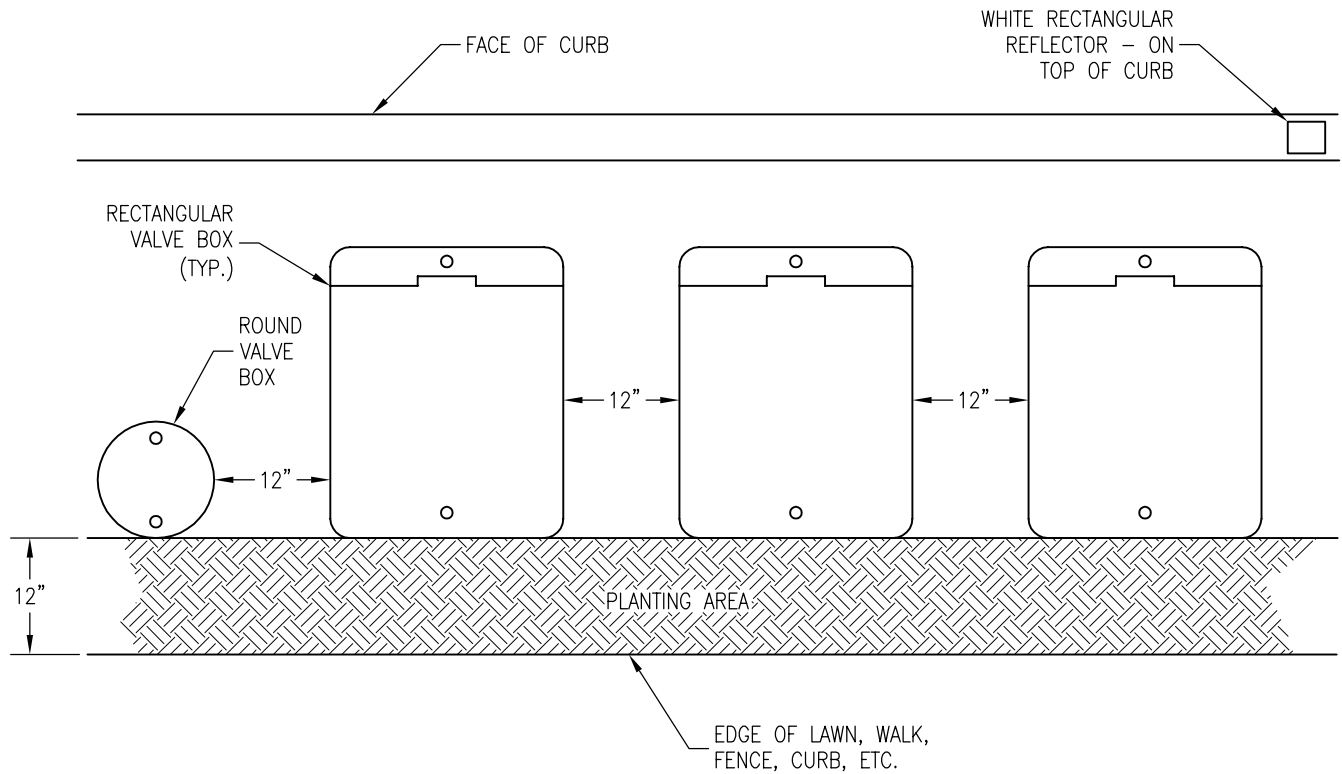


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**REDUCED PRESSURE
BACKFLOW ASSEMBLY**
 CITY OF SANTA CLARA

LS-19

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PLAN VIEW
NO SCALE

NOTES:

1. CENTER BOXES OVER VALVES.
2. SET BOXES IN GROUND COVER/SHRUB AREA WHERE POSSIBLE.
3. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
4. AVOID HEAVILY COMPACTING SOIL AROUND BOXES TO PREVENT DAMAGING VALVE BOXES

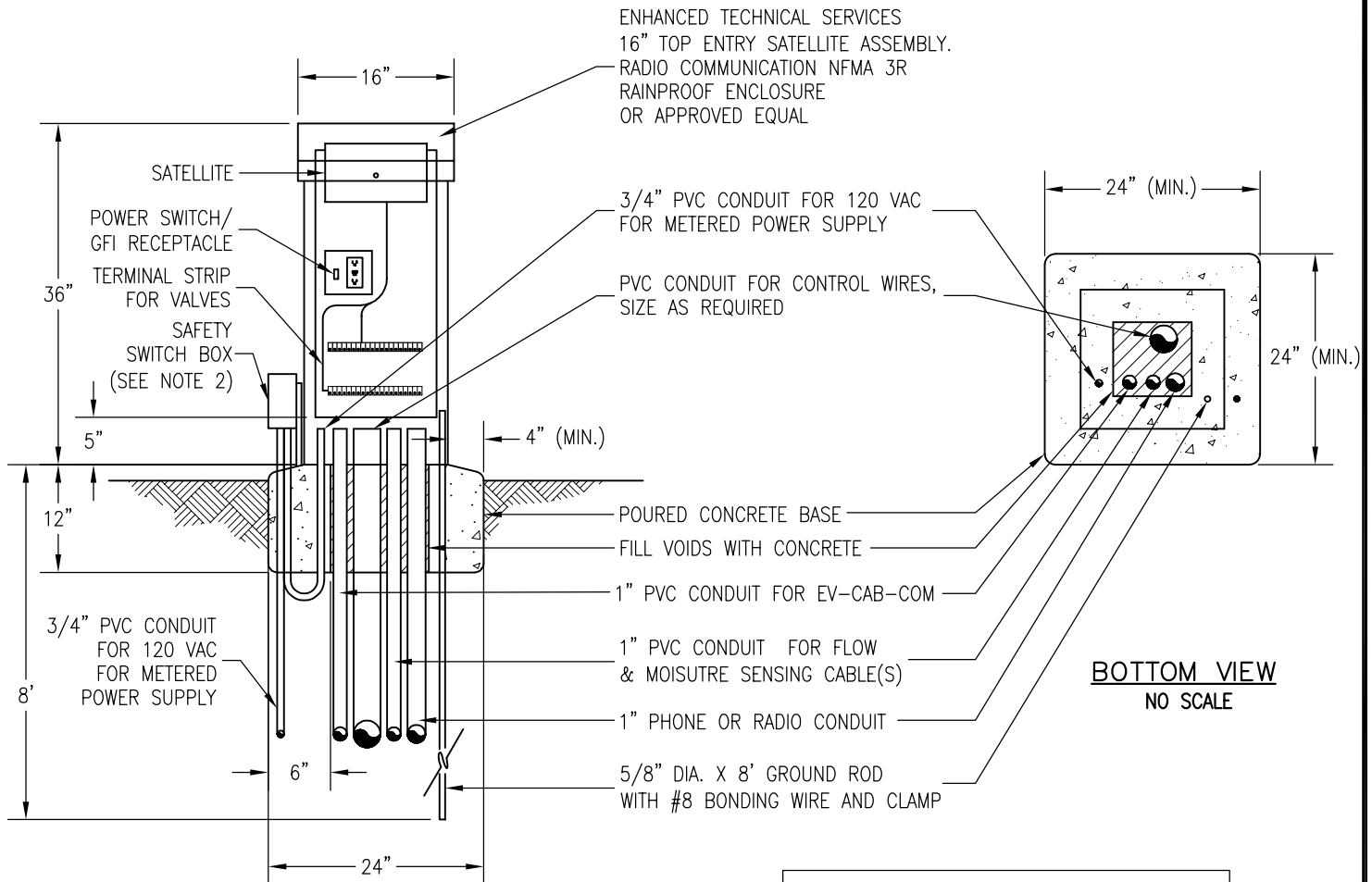


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IRRIGATION
 VALVE BOX LOCATIONS
 CITY OF SANTA CLARA

LS-20

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16" ENTRY SATELLITE ASSEMBLY
(SA6-RM8-(STA#)/DX3)
OR APPROVED EQUAL
ELEVATION VIEW
NO SCALE

NOTES:

1. ENCLOSURE TYPE MAY VARY PER APPLICATION UPON APPROVAL.
2. SAFETY SWITCH BOX SHALL BE SERIES E3 RAINPROOF 30 AMPS TYPE 3R ENCLOSURE, OR APPROVED EQUAL.
3. SAFETY SWITCH BOX SHALL BE ATTACHED EITHER TO THE ENCLOSURE EXTERIOR OR TO APPROVED POST (1"x1" STEEL OR 4"x4" WOOD).

SA ASSEMBLY TO INCLUDE

- CONTROLLER MODEL AS SPECIFIED
- ENCLOSURE MODEL AS SPECIFIED
- OPTIONS AS SPECIFIED
- TERMINAL STRIPS
- TEMPLATE & BOLTS
- 8' COPPER GROUND ROD
- 5 YEAR LIMITED WARRANTY
- CONTACT ENHANCED TECHNICAL SERVICES TO OBTAIN CERTIFICATION



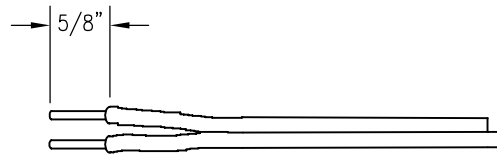
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**IRRIGATION SATELLITE
(RADIO COMMUNICATION)**

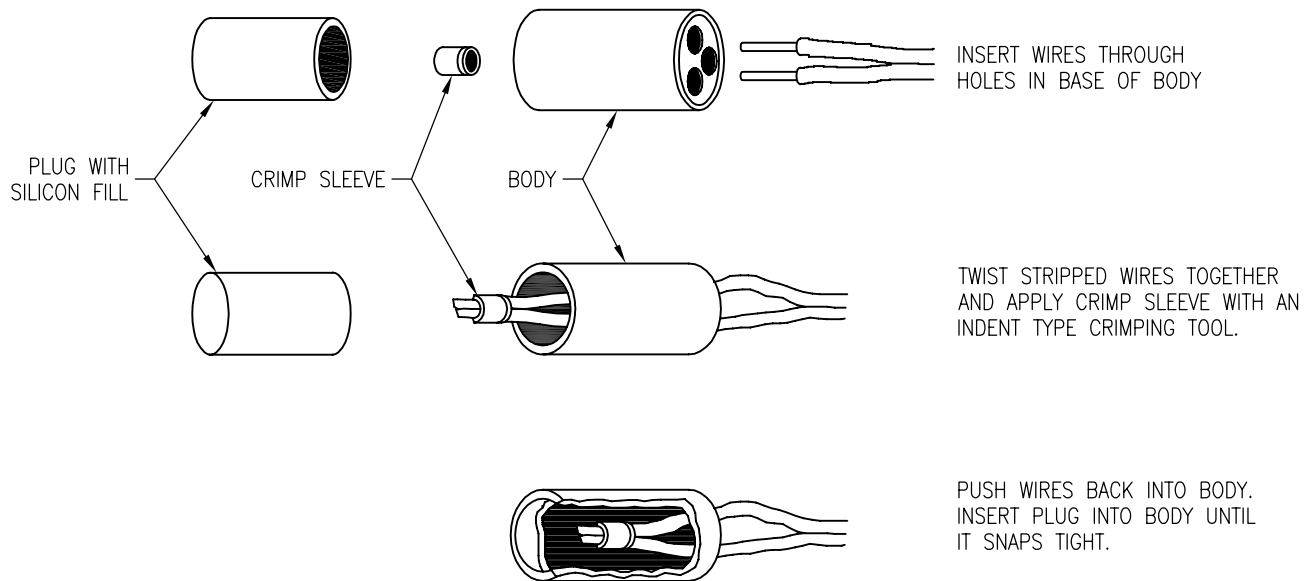
CITY OF SANTA CLARA

LS-21

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STRIP WIRES TO APPROXIMATELY
5/8" FROM END.



NOTES:

1. ONE CONNECTOR WILL HANDLE #10, #12 AND #14 AWG WIRES.
2. WIRE CONNECTOR WILL ACCEPT TWO OR THREE WIRE CONNECTIONS.
3. MANUFACTURED BY SPEARS, MODEL DS-400, OR APPROVED EQUAL.



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LOW VOLTAGE IRRIGATION
WIRE CONNECTION

CITY OF SANTA CLARA

LS-22

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STANDARD DETAILS

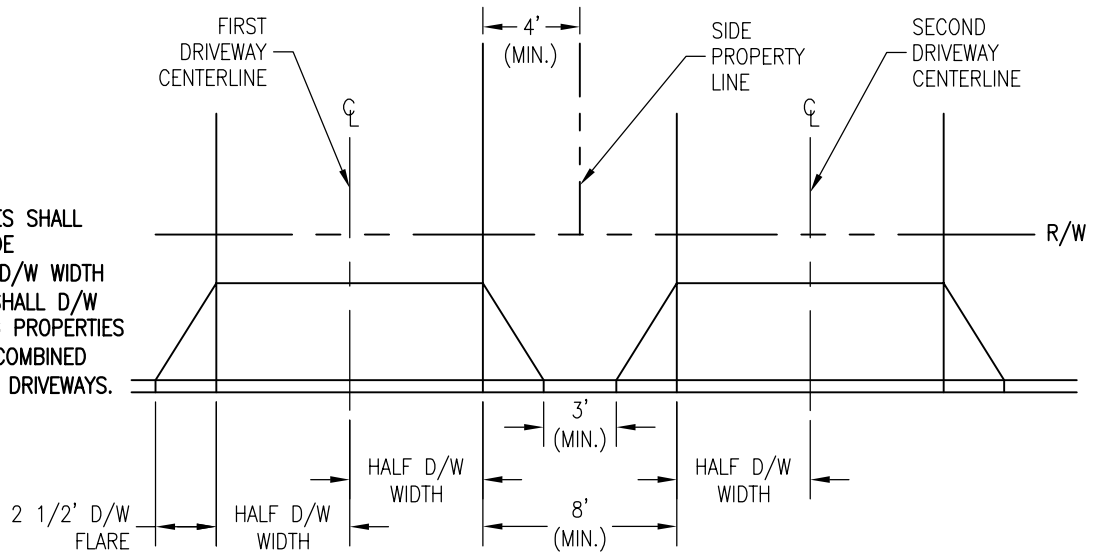
Department of Public Works
City of Santa Clara, CA

MISCELLANEOUS SECTION

DETAILS MI-1 TO MI-8

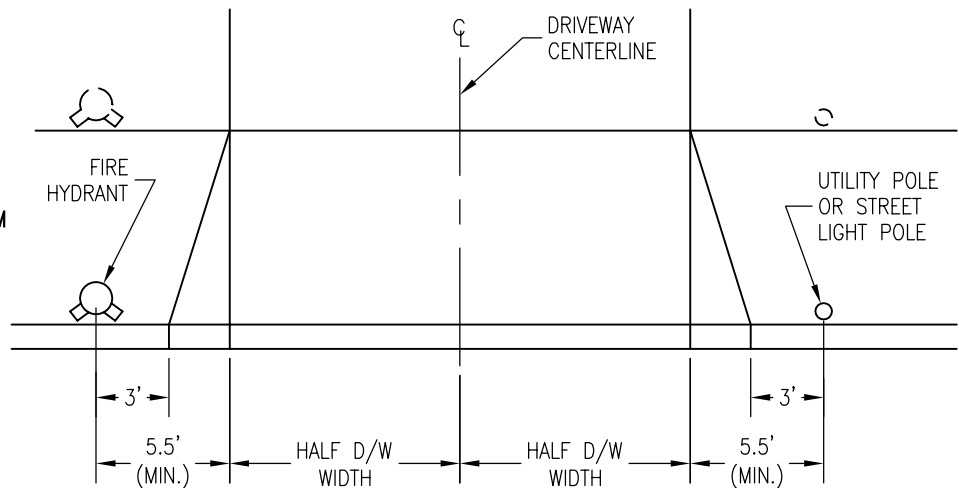
CONDITION I

DRIVEWAY (D/W) CENTERLINES SHALL NOT BE CLOSER TO THE SIDE PROPERTY LINE THAN HALF D/W WIDTH PLUS 4' BUT IN NO CASE SHALL D/W CENTERLINES FOR ADJOINING PROPERTIES BE CLOSER THAN 8' PLUS COMBINED HALF D/W WIDTHS OF BOTH DRIVEWAYS.



CONDITION II

NO D/W CENTERLINE SHALL BE CLOSER THAN HALF D/W WIDTH PLUS 5.5' FROM THE CENTER OF ANY FIRE HYDRANT, UTILITY POLE OR STREET LIGHT STANDARD.



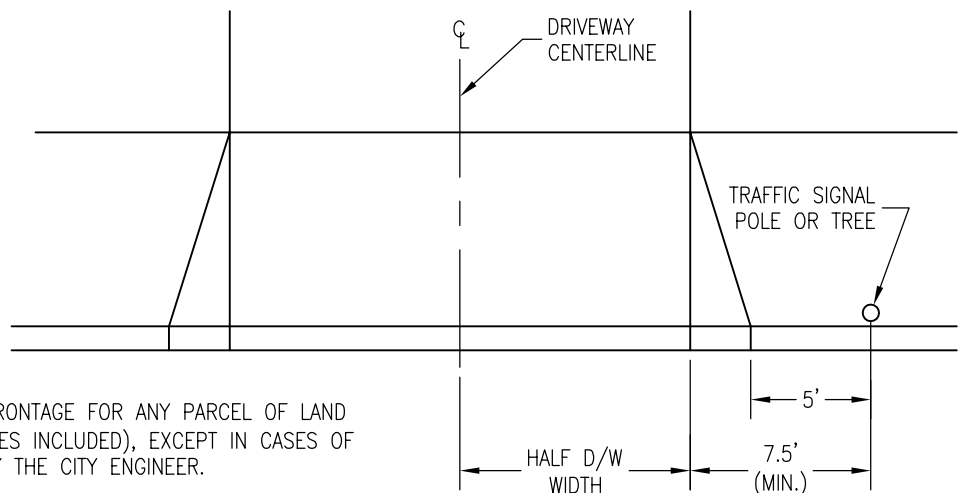
CONDITION III

NO D/W CENTERLINE SHALL BE CLOSER THAN HALF D/W WIDTH PLUS 7.5' FROM THE CENTER OF A TRAFFIC SIGNAL POLE OR TREE.

NOTE:

NOT MORE THAN 50% OF THE STREET FRONTAGE FOR ANY PARCEL OF LAND SHALL BE DEVOTED TO DRIVEWAYS (FLARES INCLUDED), EXCEPT IN CASES OF NARROW FRONTAGES WHEN APPROVED BY THE CITY ENGINEER.

DRIVEWAY CENTERLINES ON THE SAME PROPERTY SHALL BE AT LEAST THEIR COMBINED HALF WIDTHS PLUS 29 FEET APART.



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DRIVEWAY LOCATIONS

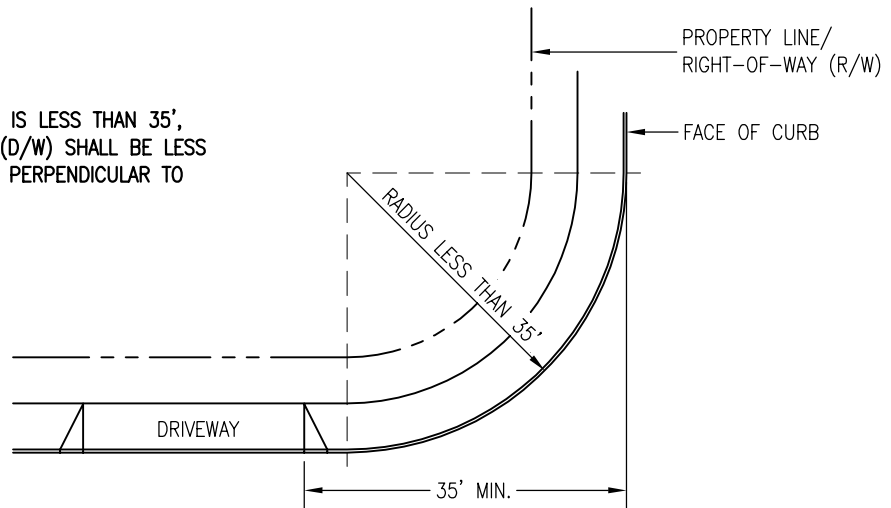
CITY OF SANTA CLARA

MI-1

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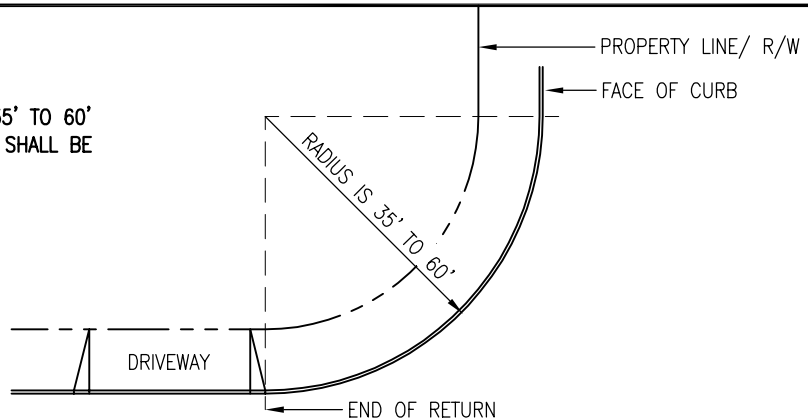
CONDITION IV

WHERE A CURB RETURN RADIUS IS LESS THAN 35', NO PORTION OF ANY DRIVEWAY (D/W) SHALL BE LESS THAN 35' FROM FACE OF CURB PERPENDICULAR TO SAID D/W.



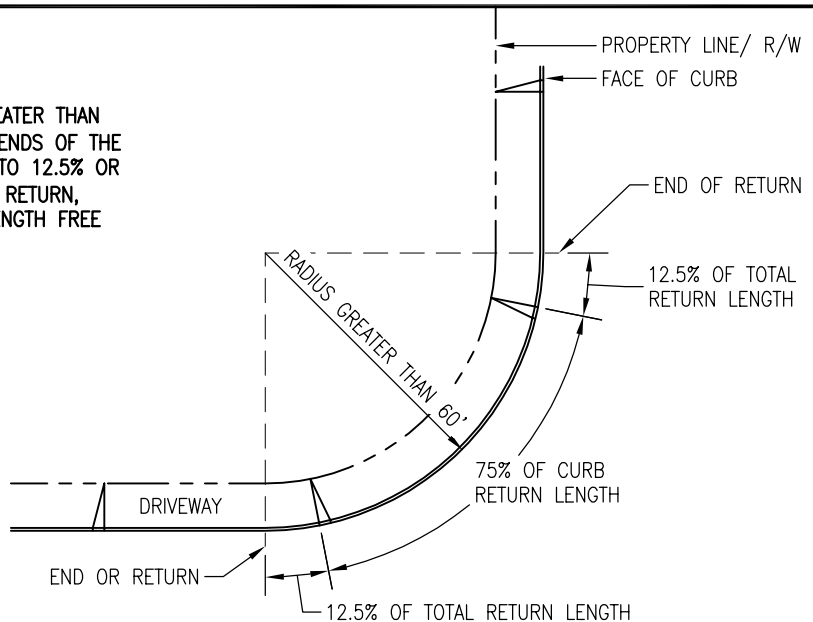
CONDITION V

WHERE THE CURB RETURN RADIUS IS 35' TO 60' (INCLUSIVE), NO PORTION OF ANY D/W SHALL BE PERMITTED WITHIN THE CURB RETURN.



CONDITION VI

WHERE A CURB RETURN RADIUS IS GREATER THAN 60', D/W MAY ENCROACH UPON EACH END OF THE RETURNS A MAXIMUM DISTANCE EQUAL TO 12.5% OR 1/8TH THE ARC LENGTH OF THE CURB RETURN, LEAVING 75% OF THE CURB RETURN LENGTH FREE FROM D/W ENCROACHMENTS.



CONDITION VII

ON ALL CURB RETURNS WHERE CHANNELIZATION AND/OR COMPOUND CURVES ARE TO EXIST, D/W LOCATION SHALL BE SUBJECT TO APPROVAL BY THE CITY ENGINEER.



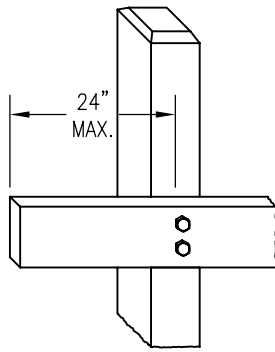
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DRIVEWAY LOCATIONS AT CURB RETURNS

CITY OF SANTA CLARA

MI-2

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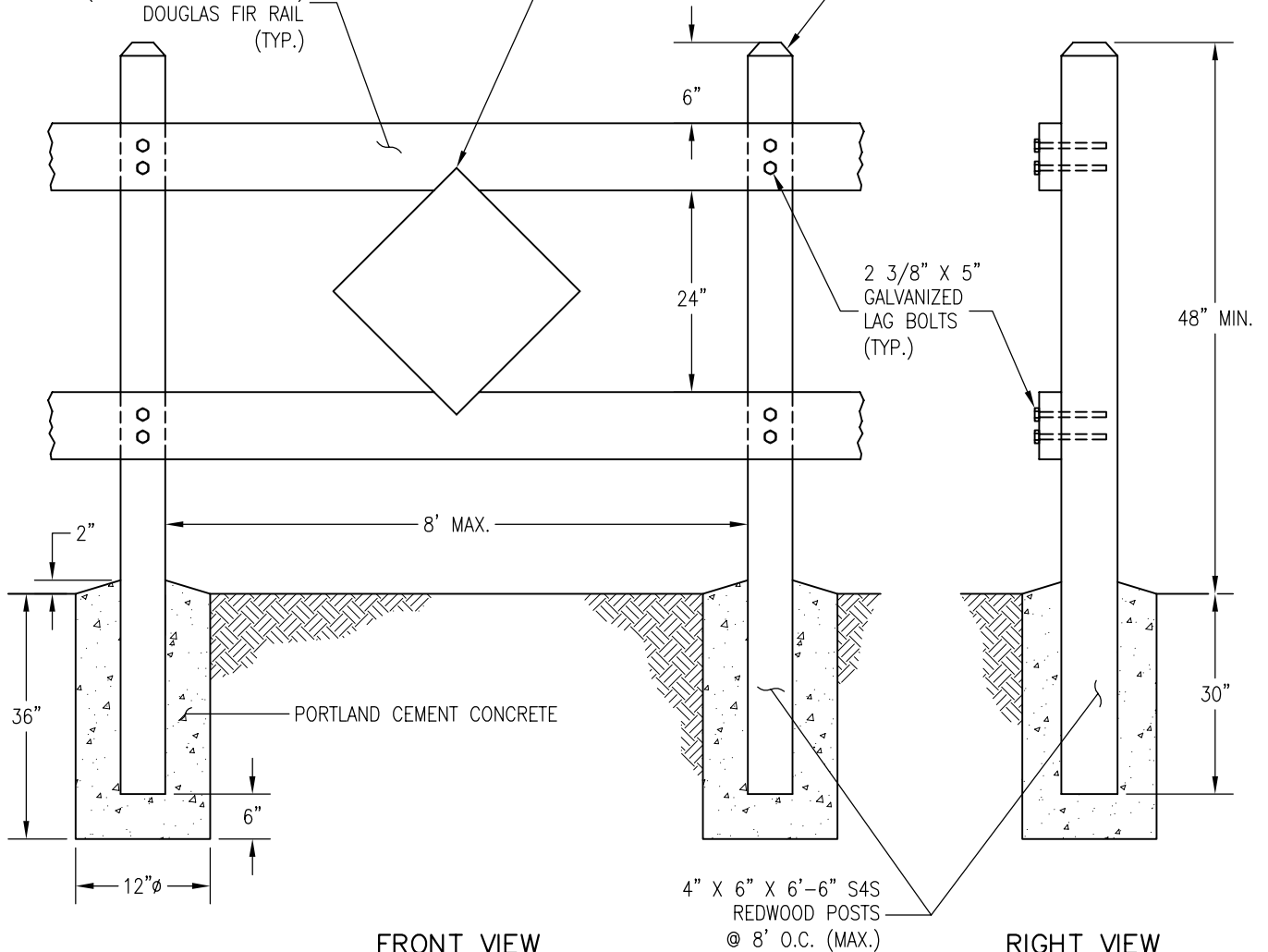


GUARD RAIL OVERHANG DETAIL
NO SCALE

24" X 24" REFLECTORIZED SIGN SHALL BE NO. 2271
YELLOW SCOTCHLITE OR APPROVED EQUAL ON .080
ALUMINUM SECURELY ATTACHED AS SHOWN (1 REQUIRED AT
MIDPOINT OF EACH SECTION)

1/2" CHAMFER ON TOP
CORNERS OF ALL POSTS

2" X 6" S4S
(SURFACED FOUR SIDES)
DOUGLAS FIR RAIL
(TYP.)



FRONT VIEW
NO SCALE

RIGHT VIEW
NO SCALE

NOTES:

1. GUARD RAILS AND POSTS SHALL BE PAINTED WITH TWO (2) COATS OF EXTERIOR WHITE WOOD PAINT.
2. BARRICADE SHALL EXTEND 2' BEYOND FACE OF CURB.

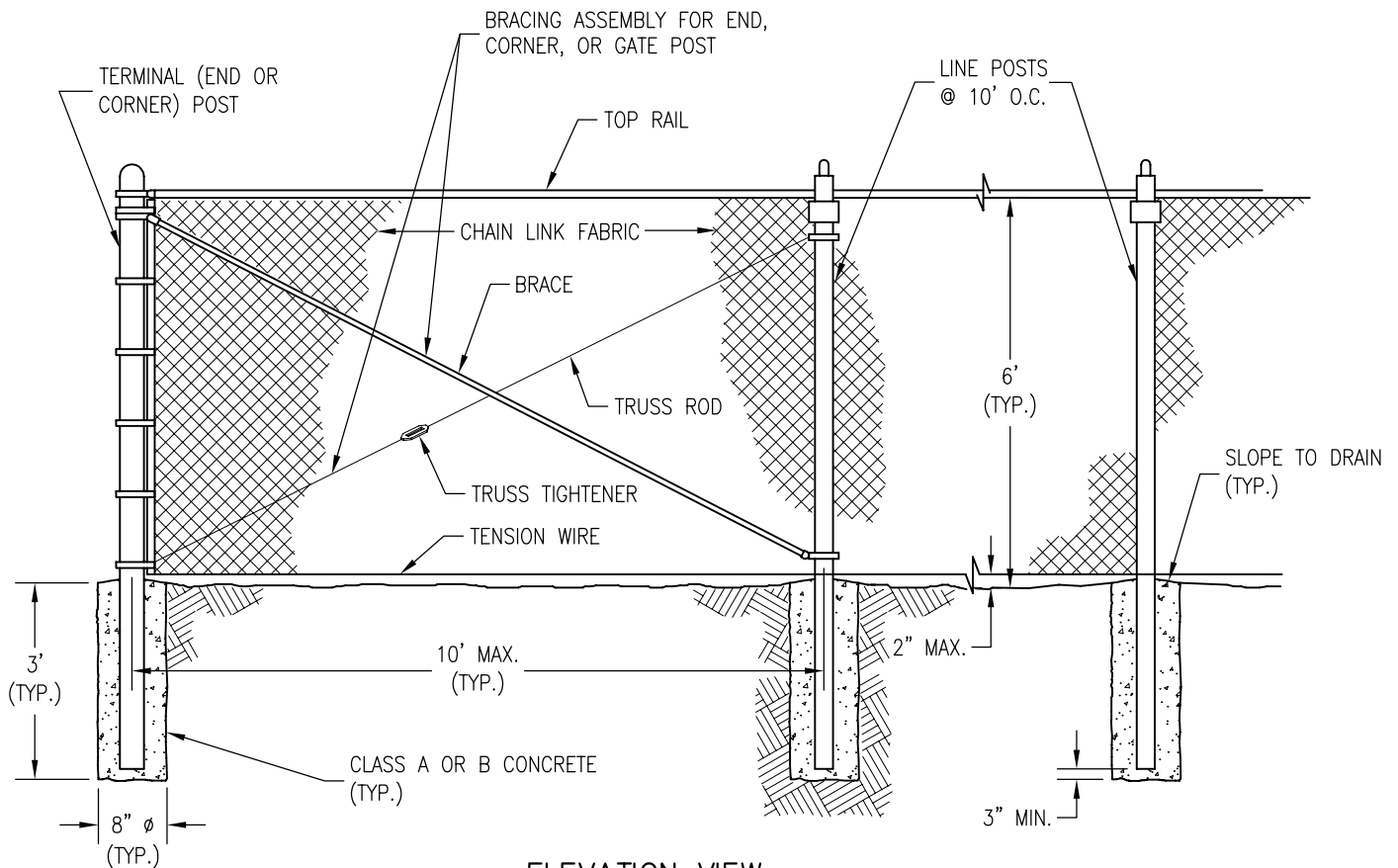


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STREET BARRICADE
CITY OF SANTA CLARA

MI-3

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ELEVATION VIEW
NO SCALE

NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO CALTRANS REQUIREMENTS FOR CHAIN LINK FENCE AS SPECIFIED IN SECTION 80-4 OF THE STANDARD SPECIFICATION (JULY 1992) EXCEPT THAT IN LIEU OF TOP TENSION WIRE, TOP RAIL SHALL BE USED. TOP RAIL SHALL BE GALVANIZED STEEL PIPE NOT LESS THAN 1.63" OUTSIDE DIA. AND WEIGHING NOT LESS THAN 1.93 LBS. PER LINEAL FOOT.
2. CHAIN LINK FABRIC WIRE SHALL BE 11-GAGE MINIMUM. IF SPECIFIED, THE PLASTIC COATED STEEL MESH AND STAINED REDWOOD SLATS ARE AS FOLLOW:
 - A) PLASTIC COATED CHAIN LINK FABRIC SHALL BE 11-GAGE PLASTIC COATED COMMERCIAL QUALITY STEEL WIRE WOVEN INTO A 2" MESH CHAIN LINK FABRIC. PLASTIC COATING SHALL BE FIRMLY BONDED TO THE STEEL CORE WIRE AND PROVIDE A DENSE IMPERVIOUS COVERING AT LEAST 0.005" THICK. THE COATING SHALL BE OF A HIGH QUALITY AND SHOW NO DELETERIOUS EFFECTS FROM CHEMICALS SUCH AS AMMONIUM HYDROXIDE, SODIUM CHLORIDE, GASOLINE, PETROLIUM OILS, OR HYDROCHLORIC ACID, NOR SHALL IT SUPPORT COMBUSTION. THE COATING SHALL ALSO HAVE AN ESTHETICALLY PLEASING COLOR THAT WILL NOT FADE, CRACK, OR SPLIT FROM NORMAL AGE AND EXPOSURE.
 - B) REDWOOD PICKET CHAIN LINK FABRIC SHALL HAVE 9-GAGE HEAVILY ZINC COATED CHAIN LINK WIRE WOVEN IN A 3 1/2" X 5 1/2" MESH AND STANDARD GRADE "A" 3/8" X 2 1/2" STAINED REDWOOD PICKETS INSERTED VERTICALLY IN EACH MESH OF THE CHAIN LINK FABRIC FOR THE FULL HEIGHT OF THE FABRIC.



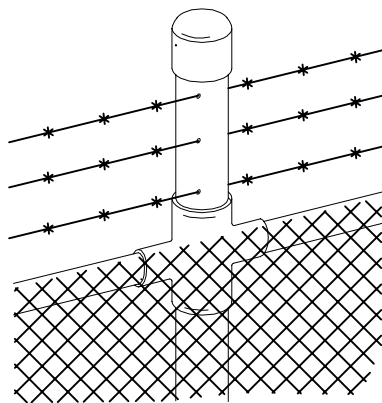
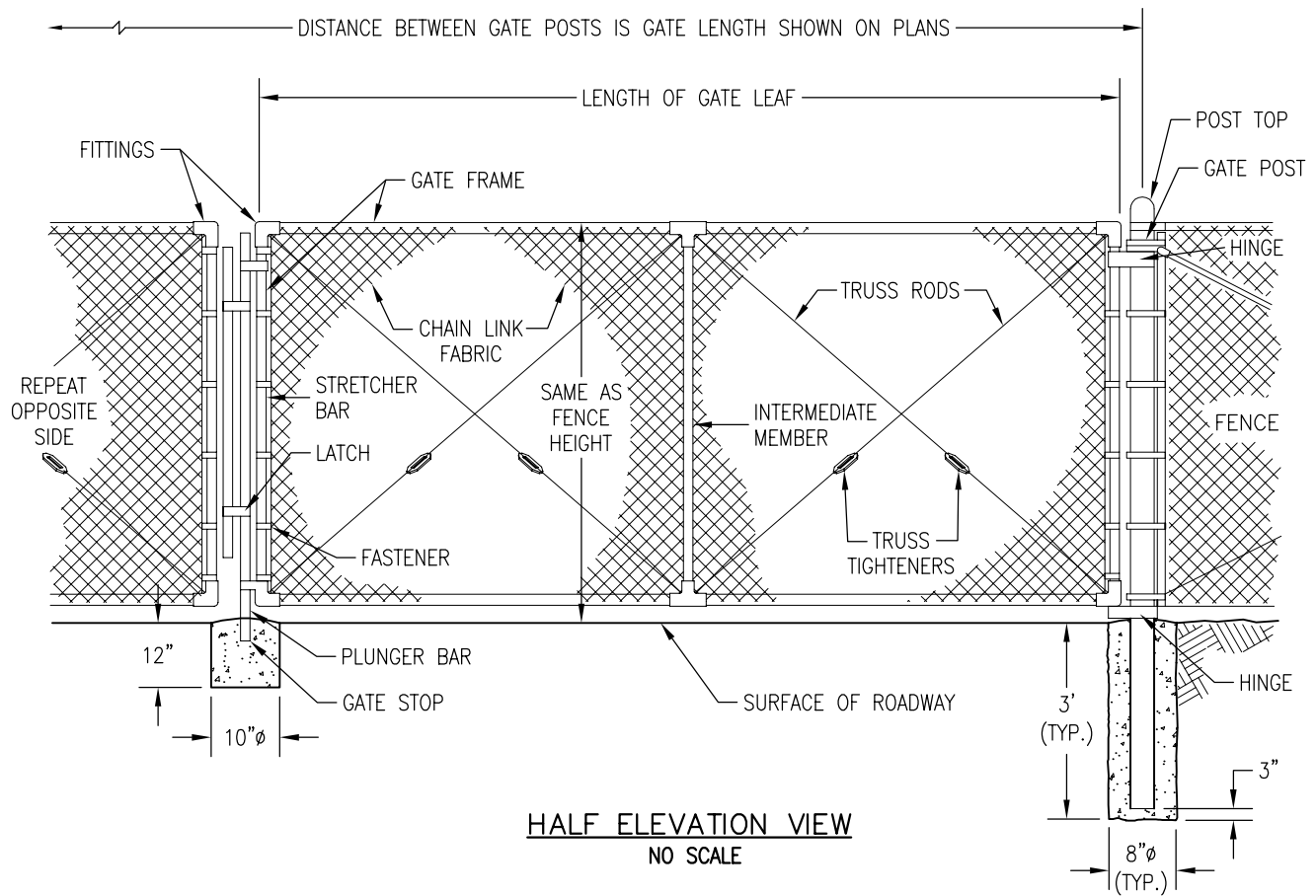
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CHAIN LINK FENCE

CITY OF SANTA CLARA

MI-4

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NOTES:

1. ALL FOOTINGS SHALL BE CLASS "A" OR "B" CONCRETE.
2. EXTENSION POST AND BARBED WIRE SHALL BE INSTALLED ONLY WHEN SHOWN ON THE PLANS AND/OR WHEN CALLED FOR IN THE SPECIAL PROVISIONS.
3. CHAIN LINK FABRIC WIRE SHALL BE 11-GAGE MINIMUM. SEE DETAIL MI-4 FOR PLASTIC COATED STEEL MESH AND STAINED REDWOOD SLATS, IF SPECIFIED.



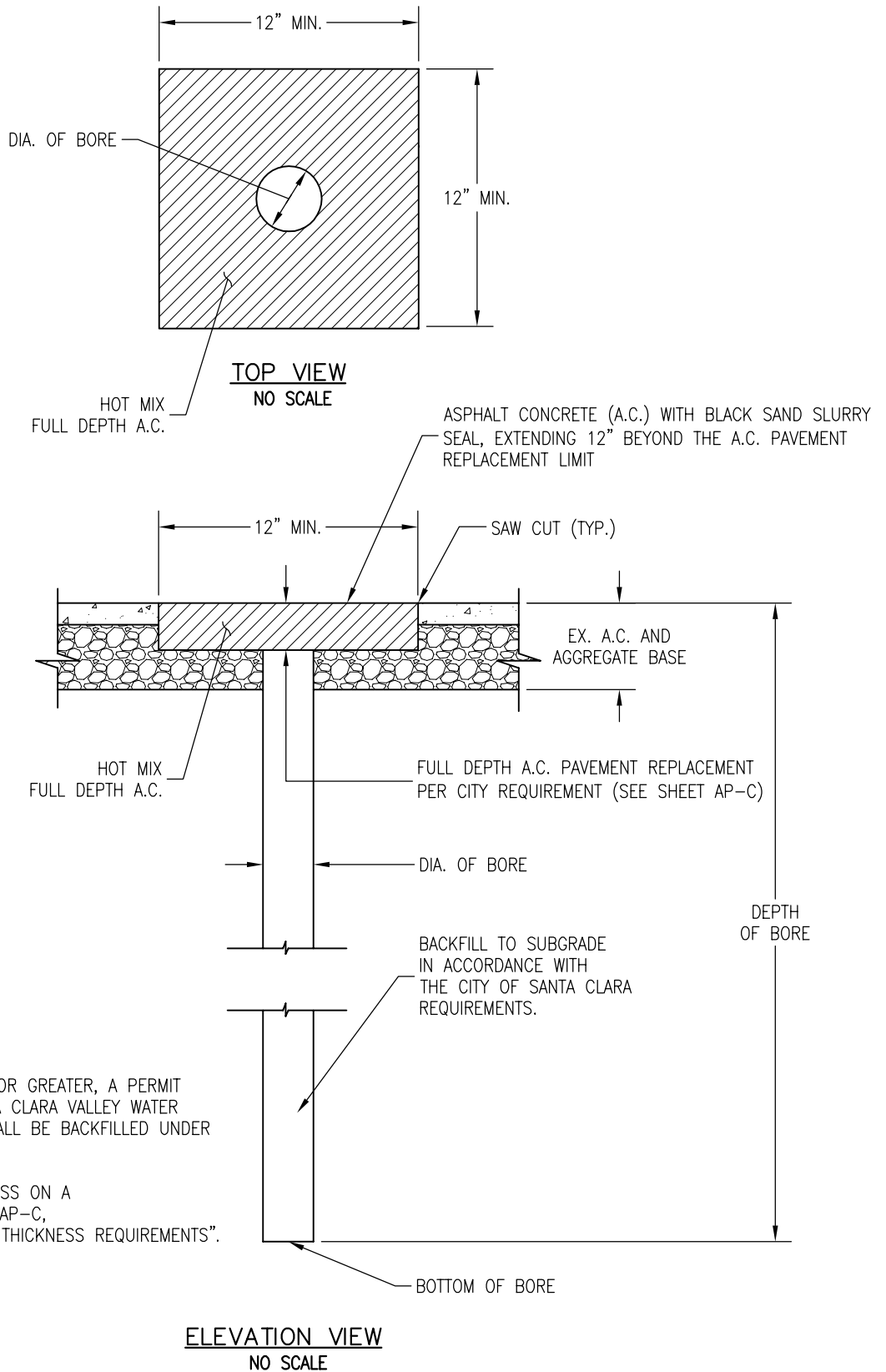
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**CHAIN LINK
DOUBLE SWING GATE**

CITY OF SANTA CLARA

MI-5

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NOTES:

1. IF DEPTH OF BORE IS 45 FEET OR GREATER, A PERMIT SHALL BE OBTAINED FROM SANTA CLARA VALLEY WATER DISTRICT (SCVWD) AND BORE SHALL BE BACKFILLED UNDER SCVWD INSPECTION.
2. FOR THE REQUIRED A.C. THICKNESS ON A PARTICULAR STREET, SEE SHEET AP-C, "APPENDIX C TRENCH PAVEMENT THICKNESS REQUIREMENTS".



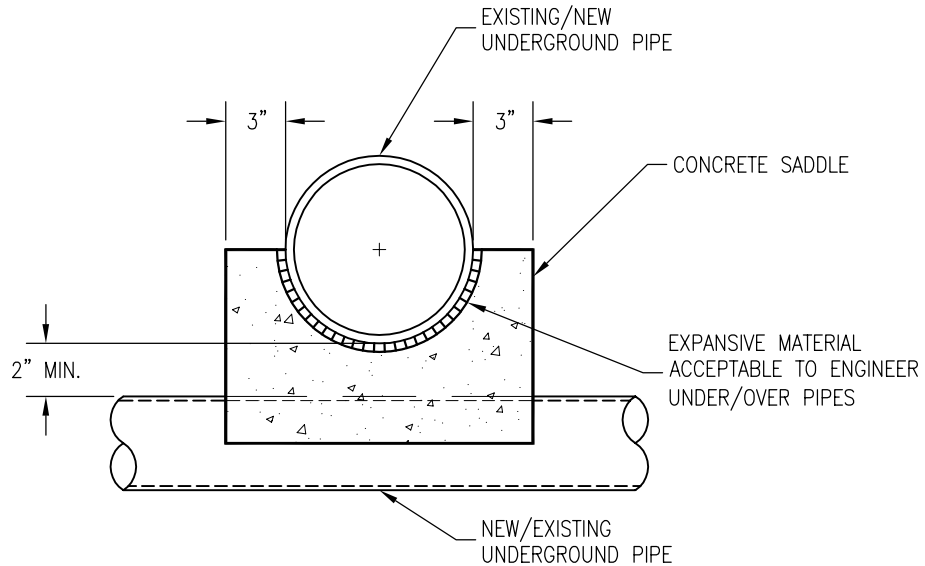
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 DATE: FEBRUARY 2007

**SOIL BORING BACKFILL AND
PAVEMENT REPLACEMENT**

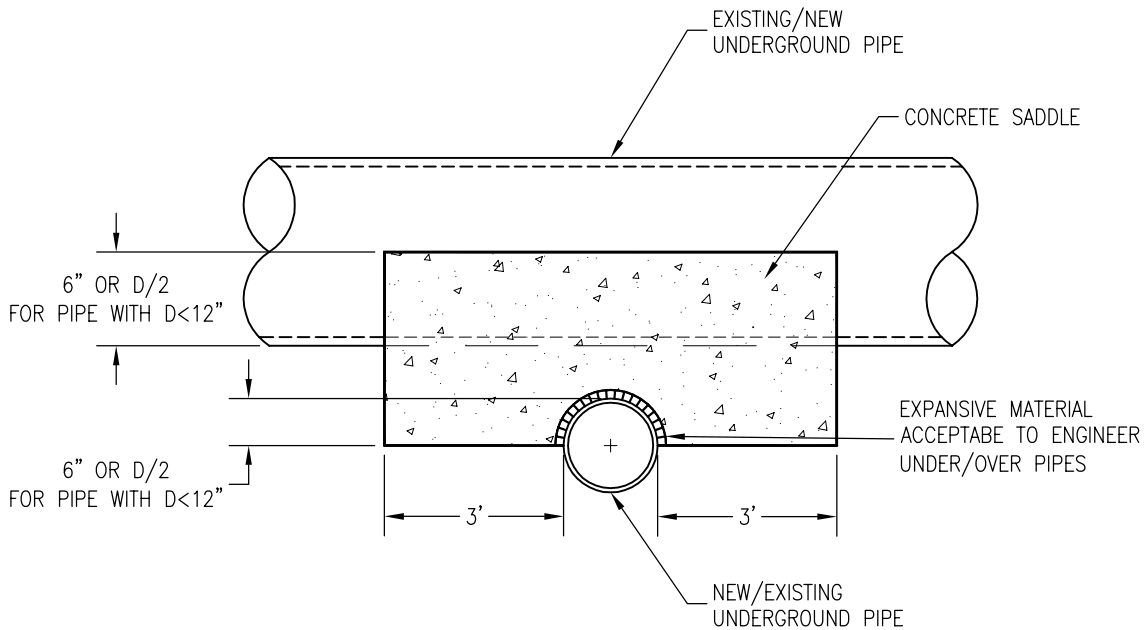
CITY OF SANTA CLARA

MI-6

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FRONT ELEVATION VIEW
NO SCALE



SIDE ELEVATION VIEW
NO SCALE

NOTES:

1. INSTALL CONCRETE SADDLE AT EACH LOCATION WHERE A NEW UNDERGROUND UTILITY CROSSES AN EXISTING UNDERGROUND UTILITY WITH LESS THAN 12" CLEARANCE.
2. MINIMUM ALLOWABLE CLEARANCE IS 2".
3. USE CLASS "A" (AKA CLASS I) CONCRETE.



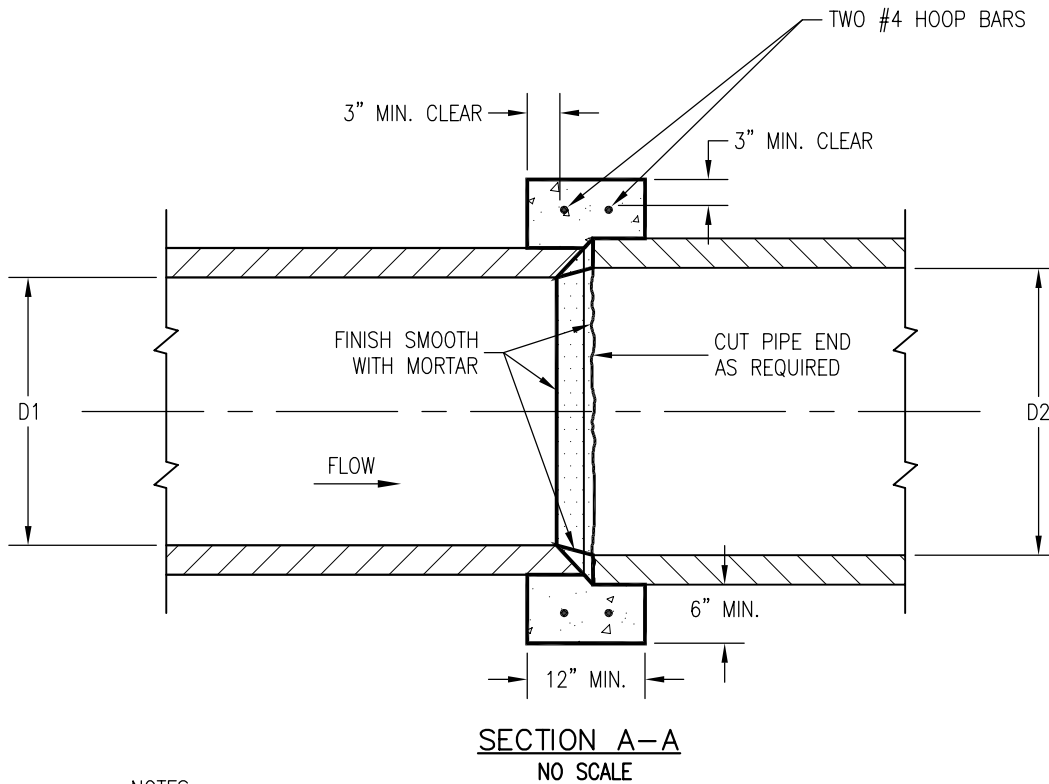
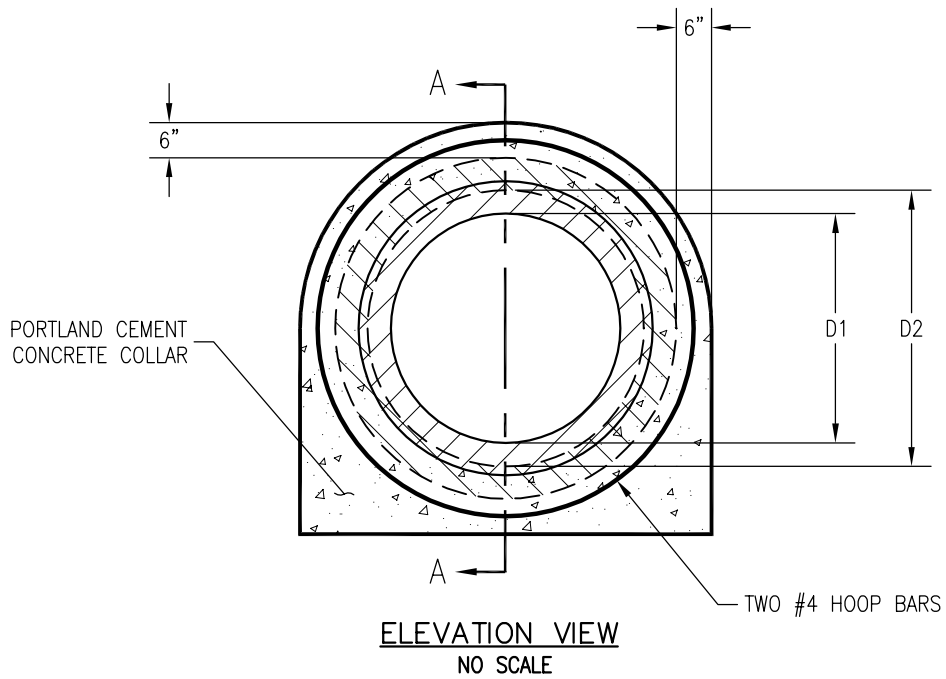
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CONCRETE SADDLE

CITY OF SANTA CLARA

MI-7

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NOTES:

1. PIPE COLLAR MAY BE USED ONLY WITH WRITTEN APPROVAL OF THE CITY ENGINEER.
2. PIPE COLLAR MAY BE USED IN JOINING PIPES WITH INCOMPATIBLE (NON-MATING) JOINTS, WHERE: $D2 \geq D1$ AND $D2 \leq (D1 + 3")$.
3. PIPE COLLAR DOES NOT HAVE TO BE FINISHED IF COVERED, BUT MUST HAVE A MINIMUM OF 6" OF CONCRETE AROUND JOINT.



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CONCRETE COLLAR

CITY OF SANTA CLARA

MI-8

PAGE: 75

STANDARD DETAILS

Department of Public Works
City of Santa Clara, CA

APPENDIX SECTION

AP-A, AP-B & AP-C

GENERAL NOTES

1. All materials and workmanship shall conform to the City's Standard Details, Technical Specifications, and General Requirements.
2. Contractor shall secure a Street Opening Permit from the City Engineering Department and pay appropriate fee prior to commencement of work. All work within the public right-of-way shall be done under a single Street Opening Permit.
3. It is the Contractor's responsibility to verify the location of all existing utilities with the appropriate utility agencies prior to the commencement of construction. Contractor shall notify all public and private utility owners 48 hours prior to commencement of work adjacent to the utility. Contact Underground Service Alert (USA) at 800-642-2444.
4. All sidewalk, curb, and gutter shall be removed and replaced to the nearest score mark or as directed by the Engineer. Installation of new sidewalk, curb and gutter against existing improvements shall require a sidewalk contact joint (dowels required).
5. Unless otherwise directed by the City Engineer in the field: at each location where new curb/gutter is to be installed on an existing street (driveway installation, driveway abandonment, curb ramp installation, curb face drainage installation, etc.) pavement reconstruction shall be required. An 18-inch wide band of pavement shall be removed and replaced along the entire length of curb/gutter installation. Removal depth (saw cuts required) shall be to the base material on streets with A.C. or P.C.C. pavement four (4) inches or less in thickness. Removal depth shall be two inches minimum on streets with A.C. (grind) / P.C.C. (saw cut) pavement thickness greater than four (4) inches. Replace with A.C. pavement.
6. Black sand slurry seal shall be required on all new street pavement for trench work, potholes, and street widenings. Slurry seal shall extend twelve inches beyond the limit of pavement reconstruction.
7. The Contractor shall notify, by circular, all business establishments and residences located in areas affected by the work at least forty-eight (48) hours prior to start of construction. Circular shall be subject to the approval of the City Engineer.
8. All manholes, valve boxes, monument boxes, and other structures in the pavement area shall be adjusted to finish grade before paving final lift.
9. Grade breaks on curbs and sidewalks are to be rounded off on form work and finished surfacing.
10. It is the Contractor's responsibility to replace all street monuments or lot corner pipes disturbed during the process of construction. If a street monument has the potential of being disturbed, a Corner Record shall be filed with the Santa Clara County Surveyor (per Section 8773.2 of the Public Land Surveyors Act) as required by the Subdivision Map Act to preserve the location of said street monument. Contractor shall, at his/her expense, hire a Civil Engineer or Land Surveyor to perform the work.
11. All surplus and unsuitable material shall be removed from public right-of-way.
12. Contractor shall provide adequate dust control and keep mud and debris off the public right-of-way at all times.
13. All trenches and excavations shall be constructed in strict compliance with the applicable sections of California and Federal O.S.H.A. requirements and other applicable safety ordinances. Contractor shall bear full responsibility for trench shoring design and installation.
14. Existing utilities shown are based upon record information and are approximate in location and depth. The Contractor shall pothole all existing utilities that may be affected by new facilities in this contract, verify actual location and depth, and report potential conflicts to the Engineer prior to excavating for new facilities.
15. Contractor shall perform his construction and operation in a manner, which will not allow harmful pollutants to enter the storm drain system. To ensure compliance, the Contractor shall implement the appropriate Best Management Practice (BMP) as outlined in the brochures entitled "Best Management Practice for the Construction Industry" issued by the Santa Clara Valley Nonpoint Source Pollution Control Program, to suit the construction site and job condition.
16. Overnight parking of construction equipment in the public right-of-way shall not be permitted, except at location(s) approved by the City Traffic Engineer.
17. All sanitary sewer and/or storm drain lines to be abandoned shall be filled with sand or control density fill (CDF) and plugged at each end with a 6" thick wall of Class "A" P.C.C.
18. Abandonment of sanitary sewer lateral at the property line shall include the complete removal of the Christy Box, all vertical pipes and the 45° Wye. The remaining lateral ends shall be plugged with 6" thick wall of Class "A" PCC, ensuring no concrete enters the main.
19. Abandonment of sanitary sewer lateral at the main shall include disconnecting the lateral at the 45° bend and capping the 45° bend with an approved stainless steel cap and band. Plug the lateral end with 6" thick wall of Class "A" P.C.C., and fill lateral with sand. Finish by removing the clean-out per above Note 18.
20. Unless otherwise noted, Class 2 A.B. under curb, gutter, and street sections paved with asphalt concrete shall be compacted to 95% relative compaction (minimum).



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DATE: AUGUST 2006

APPENDIX A GENERAL NOTES

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CONNECTION TO PUBLIC STORM SYSTEM

CASE A: CONNECTION TO MAINS LESS THAN 48" IN DIAMETER

1. Lateral connection shall require a manhole.
2. Lateral diameter shall be 12" or greater. A lateral diameter greater than 50% of the main diameter or greater than 18" shall require the review and approval of the City Engineer.
3. An accessible cleanout structure at the property line is NOT required.
4. A lateral that connects directly from an on-site collection system to a City manhole, shall be maintained by the owner of the serviced property.

CASE B: CONNECTION TO MAINS 48" IN DIAMETER OR GREATER

1. Lateral connection shall require a junction structure designed by a registered Civil Engineer.
2. A lateral that connects directly from an on-site collection system to a City junction box, shall be maintained by the owner of the serviced property.

CASE C: CONNECTION OF PRIVATE PIPE SYSTEM TO STREET CATCH BASIN

1. Any pipe connection shall be made at the back of the existing catch basin.
2. Pipe diameter shall not be less than 4" nor greater than 12".
3. An accessible cleanout structure at the property line is NOT required.
4. Pipe from site to the catch basin shall be maintained by the owner of the serviced property.

CASE D: CURB FACE DRAINAGE OUTLET

1. A "Curb Face Drainage Outlet" (see Standard Details SD-1) may be used only where no underground drainage system is available, as determined by the City Engineer.
2. Pipe material shall be steel and the diameter shall be 3".
3. An accessible cleanout structure at the property line is NOT required.
4. The "Curb Face Drainage Outlet" shall be maintained by the owner of the serviced property.

NOTE: Backflow preventive devices may be required by the City Engineer when it is determined that the potential for flooding due to the surcharge of the storm drainage system exists. These devices shall be located outside the public right-of-way, and shall be maintained by the owner of the serviced property. (See Design Criteria)



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APPENDIX B CONNECTION TO PUBLIC STORM SYSTEM

CITY OF SANTA CLARA

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**STREETS REQUIRING 10 INCHES OF ASPHALT CONCRETE
FOR TRENCH PAVEMENT RESTORATION**

Agnew Road
 Bassett Street
 Benton Street (Lincoln to West City Limits)
 Betsy Ross Drive
 Bowers Avenue
 Bunker Hill Lane
 Calle de Luna
 Calle del Mundo
 Calle del Sol
 Democracy Way
 Freedom Circle
 Great America Parkway
 Homestead Road
 Hope Drive
 Juliette Lane
 Kiely Boulevard
 Kifer Road
 Lafayette Street
 Laurelwood Road
 Lick Mill Boulevard
 Martin Avenue
 Mission College Boulevard
 Monroe Street
 Norman Avenue
 Old Ironsides Drive
 Old Mountain View-Alviso Road
 Patrick Henry Drive
 Pruneridge Avenue
 Russell Avenue
 Saratoga Avenue
 Scott Boulevard
 Stevens Creek Boulevard
 Tasman Drive
 Thomas Road
 Walsh Avenue
 Washington Street (South of Poplar)
 Winchester Boulevard
 Yerba Buena Way

NOTE: All streets, other than the streets listed above, require 8 inches of asphalt concrete for trench pavement restoration.



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**APPENDIX C
TRENCH PAVEMENT
THICKNESS REQUIREMENTS**

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